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ABSTRACT

This final report presents a set of linked investigations of the effects of training teachers in effective classroom management practices in a series of school-based workshops. A previous study led to the development of descriptive models of effective management and instruction. These "models-in-use" provided interpretations of how what teachers do functions within the classroom context, and what occurs as a result in terms of instructional progression and the construction of social and academic structures. Sixteen teachers participated in the validation study and were randomly assigned to either experimental or control groups. Data were generated through a variety of classroom observation measures. A detailed description is provided of the series of planned comparisons organized in five separate, but tied, investigations. These investigations (1) substantiated and identified the effects of training workshops on teachers' classroom management practices; (2) examined relationships between classroom management and student achievement variables; (3) produced descriptive "models-in-use" of classroom management; (4) generated comparative data on differences between effective and less-effective teachers; and (5) made comparisons between the classroom management training model and the models-in-use demonstrated by both trained and untrained teachers. Appendices contain the instructor manual and the manual for the classroom mangement observation and conference model. (JD)

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Final Report

EFFECTIVE CLASSROOM MANAGEMENT AND INSTRUCTION: AN EXPLORATION OF MODELS

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PREFACE

Serious concern has emerged in recent years about the quality of educational experiences offered in our nation's schools and the need for higher levels of student achievement as a result of schooling. Inextricably tied to issues related to the quality of schooling are issues of how teachers can establish in their classrooms effective learning environments with opportunities for quality experiences for students.

This study, Effective classroom management and instruction: An exploration of models, sponsored by the National Institute of Education (NIE G-83-0063), had four objectives:

* To identify descriptive models of classroom management and instructional management used by effective and less effective teachers.
* To compare and contrast the models of classroom management and instructional management used by effective and less effective teachers.
* To compare and contrast a model for training teachers in classroom management with the "models-in-use" demonstrated by teachers, both trained and untrained in classroom management.
* To explore relationships among classroom management and student achievement, the demands placed on students for academic and social participation, and instructional interaction patterns.

This final report should be of interest to national, state, and local education administrators, educators and researchers. Investigations of the objectives noted above produced findings on the difference between knowing "that" certain practices lead to achievement gains, and learning "how" these processes operate in classrooms.

Educational Research and Policy: A Collaborative Approach (forthcoming) is a policy handbook (NIE G-83-0063) based on the collaborators' experiences in this project that will be of special interest to national, state, and LEA policy-makers.

SUMMARY

This final report presents a set of linked investigations of the effects of training teachers in effective classroom management practices in a series of school-based workshops. Four purposes were addressed by the study: (1) to identify descriptive models of classroom management and instructional management used by effective and less effective teachers; (2) to compare and contrast the descriptive models of classroom and instructional management used by effective and less effective teachers; (3) to compare and contrast the model of classroom management used in the training workshops with the "models-in-use" demonstrated by both trained and untrained teachers; and (4) to explore relationships among classroom management and student achievement variables, the demands placed on students for academic and social participation, and patterns of instructional interaction.

THE STATE CONTEXT, LOCAL SETTING, AND DATA BASE

The classroom management training workshops were conducted as part of an ongoing program for the improvement of teaching designed by state administrators in the Arkansas Department of General Education. The improvement program was launched with a statewide training program in instructional skills that has been disseminated to over 10,000 of the state's teachers and 70% of the school principals. At least 61% of the LEA's have completed the training cycle. The classroom management workshops were introduced as a second phase of the improvement program. Because of the large degree of participation in instructional skills training previously, an important question became whether or not classroom management training could add to teachers' present skills. To answer this question and to determine appropriate content and delivery of a classroom management model, a series of validation training studies were designed. Six studies assessing the effects of the management training were completed in several of the Arkansas school districts. Of the 102 teachers participating in the studies all had completed the state's program in instructional skills.

In reviewing the findings from the six validation training studies, members of the state's advisory committee and the principal investigator recognized significant effects on classroom practices for the trained teachers, but were also concerned about teachers for whom training had less marked effects than for others. This concern led to conception of the present follow-up investigation and the involvement of one of the school districts in a secondary analysis of data collected in its district. This district's junior high schools had participated in the validation studies.

Student population in the district is composed of 60% white, 33% black, and 7% Mexican-American students. A sample of 16 teachers (eight English and eight math) volunteered to participate in the original validation study. Participants were matched on subject matter taught, years of experience, and grade level then randomly assigned to either experimental or control groups. All teachers were female except for one male math teacher. Four teachers were black and 12 were white.

Data collected as part of the validation study in this district were generated through a variety of classroom observational measures. For each of the 16 teachers in the sample the following data sets were available for each of six observations: (a) narrative notes with class activity descriptions for the 45-minute observations, (b) classroom rating scales, (c) three or more ratings of student engagement for each class period, (d) summary ratings for each teacher taken at the end of six observations per teacher, (e) audio recordings of the classroom lessons, and (f) pre- and post achievement test scores on standardized and district-wide criterion-referenced tests in English and math. This data bank provided the opportunity for comprehensive, in-depth examination and post hoc analyses of teaching-learning processes in any of the 16 classrooms. The district also made opportunities available for follow-up interviews with the teachers and provided access to curriculum and textbook materials used in any given lesson.

RESEARCH DESIGN: A SERIES OF LINKED INVESTIGATIONS

The final report provides a detailed description of the series of planned comparisons organized in five separate, but tied, investigations. Each was designed such that its findings could provide part of the entry framework for what was to follow. Findings in each also served to inform what had come before. In order, these investigations: (1) substantiated and identified the effects of the training workshops on teachers' classroom management practices; (2) examined relationships between classroom management and student achievement variables; (3) produced descriptive "models-in-use" of the classroom management processes used by a sub-sample of effective and less effective instructors (based on achievement data from their classes); (4) generated comparative data on the differences between effective and less effective teachers in setting expectations for student participation and in signalling and monitoring the academic content of lessons; and (5) generated comparisons between the classroom management training model and the models-in-use demonstrated by both trained and untrained teachers. The first two of these investigations followed a process-product tradition of research on teaching; the third and fourth were approached from a sociolinguistic perspective on teaching-learning processes; the fifth investigated the compatibility of findings from the two alternative research traditions. Findings from these separate but tied investigations are summarized below.

Findings: The effects of training in classroom management

Of 35 five-point ratings used to assess teachers' management practices after each observation, 22 (61%) were significant ($p \le .10$) in favor of the trained teachers (significance level chosen because of the small sample size.) Means for the trained group exceeded the control group means on all but one of the 35 variables. The strongest effects were for describing lesson objectives and lesson content clearly, for using efficient and appropriate classroom procedures and routines, for consistency in managing student behavior, and for a task-oriented classroom focus. Findings further support the training as a successful and cost-efficient form of school-based staff development, and provide evidence that training effects produced in tightly controlled research settings (in earlier studies) can be successfully replicated in local school settings.

Findings: The relationship between classroom management and student achievement

Achievement test score data varied among the 16 teachers by grade level and subject matter. This reflected a "real world" situation in which measurement is typically not geared to research purposes; researchers preferred not to intrude on normal operations in the district any more than necessary. Ten of the 16 classes had pre- and posttest scores on the district's criterion-referenced tests (CRT); the remaining six were measured at posttest with the SRA achievement tests and at pre-test with the Arkansas state assessment test of basic skills (SATBS). Of 272 students, 164 were in English classes and 108 in math; there were 126 students in the experimental classes and 146 in the control classes. Raw gains on the CRT (10 classrooms; students scores "pooled" without regard to classes) revealed differences in favor of the trained teachers' students (reading: F (1,116) = 32.82, p <.0001; math: F (1,66) = 4.26, p <.05). Between-class CRT gains also favored trained teachers (F (1,116) = 479.71, p <.0001; math: F (1,66 = 110.04, p <.0001). In all, 11 comparisons were generated: 9 showed higher means for the trained teachers; 7 of these 9 were statistically significant (p <.05). Neither of the 2 comparisons favoring the control group were significant. These results suggest support for the indirect effects of the management training on student achievement outcomes.

Method: Selection of a sub-sample for the focused investigations

Single class period lessons were further explored. Achievement data were organized by classroom group (range:12-24 students per class) to isolate effects by within-class movement between achievement level groupings. Rank order placement of teachers on management and instructional (achievement) effectiveness dimensions, and placement within a management/achievement typology revealed that none of the untrained teachers ranked significantly higher than the trained teachers on student achievement. There were untrained teachers, however, who ranked above a natural break in the management data who did not have within-class achievement level gains. This suggests that effective classroom management is necessary -- but not sufficient -- to produce student achievement gains. Four teachers, two trained and two untrained, were selected; management and achievement ranks were parallel.

Findings: The descriptive models-in-use

Audio recordings of a sample of lessons over the school year were analyzed through the application of a sociolinguistic perspective on teaching-learning processes. Detailed "maps" of lesson structure were developed to generate data on social and academic task demands, instructional sequencing, divergences from goal-directed instruction, and patterns of teacher-student interaction. From these maps, descriptive models of effective management and instruction were developed according to teacher placement within the management/achievement typology. Interpretations were provided, not on the basis of what teachers do, but rather, how what they do functions within the classroom context, and what occurs as a result in terms of instructional progression and the construction of social and academic demand structures.

Findings: Comparison of models-in-use across effective and less effective teachers

Initial comparisons across lessons for individual teachers revealed stability and consistency in teacher style, teacher-student interactions, and manner of eliciting student participation in lessons; there were sharp contrasts across teachers in manner of providing verbal rationales for actions and in responding to student "call-out" behaviors. Comparisons across teachers also suggested that as effectiveness rank decreased, there was an increase in demands placed on students to interpret changes in their rights and obligations for participating. Additionally, as the number of shifts in social demand increased across teachers (e.g., who can talk, when, where, about what, and for what purposes), the relative proportion of changes in academic expectations decreased . Effective teachers managed to orchestrate a relative balance between social and academic tasks in terms of the demands placed on students to interpret changes in these tasks. Further examination of the academic demand structures revealed that effective teachers provided signals to students about multiple aspects and features of the academic task at hand, and provided verbal cues about how students could understand, reason, and accomplish the task. Less effective teachers provided fewer verbal cues, introduced conflicting cues, and failed to signal relevant cues that were available within the materials or inherent within the specific tasks. This latter finding suggests that instruction is not content-free.

Findings: The comparison between the normative management training model and the descriptive models-in-use

A synthesis of the training model and the descriptive models-in-use resulted in an expanded model of classroom management and instructional management. The two alternative research traditions were found to produce complementary findings. The collaborative merger of the two perspectives provides a distinction between learning "that" certain practices make a difference in student achievement, and learning "how" these practices operate in classrooms.

Recommendations for training and policy

Collaboration had several meanings in this project and also operated in several ways. This has been found: (1) in the continuing relationships between state and local administrators and staff personnel in the state, and the researchers; and (2), at the level of the NIE project, in the merger of alternative research perspectives on classroom processes. Additionally, (3) state/local administrators, the researchers, and a policy analyst have begun documenting the collaborative approach in a policy handbook. Educational Research and Policy: A Collaborative Approach (forthcoming, NIE G-83-0063) provides a detailed case study that highlights pertinent policy issues and provides implications and recommendations for the practice of collaborative research.

Acknowledgments

The conceptualization, planning, and execution of a collaborative study such as the one reported here requires the work and commitment of many people. We wish to extend our gratitude to the Arkansas Department of General Education, Management and Development Division, and the Texarkana (Arkansas) Independent School District, Dr. Leslie Carnine, Superintendent, whose support made this work possible. Janie Pumphrey and Margaret Edwards played a major role in the project by conducting the classroom observations and assisting in data collection. We also wish to thank the principals of the two junior high schools and the 16 teachers who allowed us to learn from them.

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Chapter 1

Introduction

Few aspects of educational practice have created as much concern in past years as classroom management. Discipline and behavior management have perenially out-ranked other matters in the public's opinions of its schools (Gallup, 1984). These topics head the list of concerns of school administrators. They are among the most frequently requested topics for programs of teacher inservice development. More recently attention has shifted to concerns about the quality of educational experiences students encounter in their schools, the effectiveness of the nation's public school teachers, and the need for higher levels of academic achievement as a result of schooling.

Teacher educators and researchers have been attracted to the study of classroom management. Studies in the primary grades (Brophy & Evertson, 1976; Anderson, Evertson & Brophy, 1979) and more recently in the secondary grades (Stallings, Needels & Stayrook, 1979; Evertson, Anderson, Anderson & Brophy, 1980) have shown, in general, that teachers who have organized classrooms with few behavior problems tend to be more academically effective than comparison teachers whose classrooms are less well managed. Thus, conclusions have been drawn that effective classroom management is a necessary condition for effective teaching. At the school level, educational researchers have demonstrated an interest in the nature of effective schools and have sought to identify effective schools and to describe their characteristics. Certain features have been isolated including instructional leadership, school climate, level of expectations, emphasis on basic skills, and monitoring student progress (Bickel, 1983). MacKenzie (1983) suggests that since these major constructs derive support from a variety of sources, there is broad general agreement on the fundamental elements of effective schooling, but that there is nevertheless no clear agreement on the definitions of these constructs: "The bright light of concensus around the central elements of a construct fades little by little into gray mists of uncertainty and unanswered questions at the edge." (1983, p. 7).

Educational researchers do concur that schooling is a complex, multilevel, multifaceted process. What emerges as effective schooling cannot be adequately examined according to a checklist of specific characteristics, but rather, should be viewed as a "culture of mutually reinforcing expectations and activities" (Purkey & Smith, 1983). Studies of staff development (Little, 1981) likewise support the complex nature of effective schooling, but also point to the importance of teacher involvement as an antecedent to school success. Teacher involvement is viewed as the key to the overall power of the school setting in influencing both staff development efforts and school success. Since the larger milieu of the school contains individual classrooms within it, research on effective schooling must ultimately come to consider behavior change at the classroom level (Tomlinson, 1981).

At least two bodies of research can serve to inform practice at the classroom level. These include research on teacher effectiveness, particularly classroom management research, and research on teaching as a linguistic process.

Research on Teacher Effectiveness - Classroom Management

Various studies of teacher effectiveness have resulted in identification of teacher variables and classroom process variables associated with student achievement outcomes (Stallings and Kaskowitz, 1974; Brophy & Evertson, 1976; Brophy, 1979; Good, 1979, 1983). While most of these were conducted at the elementary classroom level, a few studies have also addressed the teacher effectiveness question at the secondary classroom level (Evertson, Anderson, Anderson, & Brophy, 1980; Stallings, 1980). In these studies, the role of effective classroom management and organization, as well as the importance of student time-on-task (Denham & Lieberman, 1980), emerged as key features of effective instruction and as necesssary conditions for insuring student academic performance.

Studies of classroom management provide evidence to suggest that, from the first day of school, advance preparation, planning, and a systematic approach are key factors in influencing effective management (Evertson & Emmer, 1982; Emmer, Evertson, & Anderson, 1980). Specific recommendations for teachers that can be extracted from these studies include (a) planning rules and procedures for general classroom organization, (b) presenting rules and procedures to students along with expectations for appropriate behavior, (c) maintaining a systematic approach through monitoring student academic work and behavior, and (d) providing feedback to students about academic performance and instructional particpation. An underlying premise of this work has been that implementation of these recommendations would result in improved student task engagement, fewer instances of inappropriate student behavior, smoother instructional activities, and ultimately, student achievement gains.

Studies investigating the effects of training teachers in principles of effective management are rare (Evertson, Emmer, Sanford, & Clements, 1983; Emmer, Sanford, Clements & Martin, 1981). Nonetheless, these studies do support the implementation of a management training program as a viable inservice procedure. Teachers trained to implement the recommendations outlined above were found to have improved student task engagement, more instances of appropriate student behaviors, and smoother instructional activities. In these studies, the relationships between management training and student achievement gains were not directly addressed.

For the most part, the classroom management studies have been normative in nature, e.g. seeking to identify general characteristics that distinguish effective teachers from less effective teachers. The bulk of the teacher effectiveness research, of which classroom management studies are a part, has been undertaken within a research tradition referred to by Dunkin and Biddle (1974) as process-product research. Within this tradition, attempts are made to identify characteristics of effectiveness that are associated with desired outcomes -- usually student achievement gains; salient teacher behaviors are cast as the independent variables. The product of these research efforts consists of various sets of generalizations. Taken together, these generalizations provide a global or composite model of effective classroom management. This normative model has then served as a source of prescriptions about what teachers should be doing to increase their effectiveness. The substantive basis of a normative model of classroom management, one used in a program of teacher inservice workshops, is presented in Table 1.1

Insert Table 1.1 about here

The normative model has been useful. It has served, first, as a theoretical base upon which classroom management training programs have been organized. That is, the model is cast as a set of strategies teachers ought to be using to insure effective management. Second, the normative model has served as the source of variables for classroom observations in studies of the effectiveness of the management training programs (Evertson, et al., 1983; Emmer et al., 1982). These researchers have noted, however, that the set of strategies extracted from the normative model were not adequate for some participants in the management training studies. In earlier studies, examination of within

Table 1.1

A Model for Training Teachers in Classroom Management[a]

Classroom management is a component of the "Total Teaching Act".

The "Total Teaching Act" is based on knowledge and understanding of human growth and development and includes the following components:

1. Classroom management skills.
2. Human relations skills.
3. Planning skills.
4. Selection and use of appropriate materials.
5. Knowledge of content.
6. Instructional skills.

Effective classroom managers demonstrate certain skills.

1. Planning rules and procedures thoroughly and in detail.
2. Teaching these to students.
3. Monitoring student work and behavior.
4. Stopping inappropriate behavior before it becomes disruptive.
5. Maximizing student task engagement and success.
6. Communicating clearly.

Effective classroom management requires planning before school starts.

1. Readying the classroom (planning use of space).
2. Developing rules for general behavior.
3. Developing rules and procedures for specific areas:
   a. Student use of classroom space and facilities.
   b. Student use of out-of-class areas.
   c. Student participation during whole class activities.
   d. Student participation in daily routines.
   e. Student participation during small group activities.
4. Deciding on incentives/consequences for appropriate/inappropriate behavior.
5. Planning activities for the first day of school.

(Table continues)

Table 1.1 (continued)

Effective classroom management requires presenting (implementing) at the beginning of school.

1. Teaching the rules and procedures.
    a. Using explanation.
    b. Using rehearsal.
    c. Using feedback.
2. Teaching academic content.
3. Communicating directions and concepts clearly.

Effective classroom management requires maintaining the management system throughout the year.

1. Monitoring for behavioral and academic compliance.
2. Acknowledging appropriate behavior.
3. Stopping inappropriate behavior.
4. Using consequences/incentives consistently.
5. Adjusting instruction for individual students/groups.
6. Keeping students accountable for work.
7. Anticipating special problems.

---

[a] As used in organization of a program of training teachers in classroom management skills, this model is based on an assumption of prior knowledge of complementary instructional skills including: (a) selecting lesson objectives at the appropriate level of difficulty; (b) teaching to these objectives; (c) maintaining the focus of the learner; (d) using the principles of learning, i.e. motivation, reinforcement, retention, and transfer; and (e) monitoring and adjusting instruction.

group differences revealed that some teachers are less successful than others in implementing a training model (Griffin, Hughes, & Martin, 1982). It may be that although the normative model identifies a series of variables related to effective management, guidelines or descriptions about how these variables are to be orchestrated are not sufficient. Collectively, these researchers have raised questions about the conditions that prevent some teachers from using information they have acquired in training, and further, about the nature of different philosophical or practical ideas about teaching that do not permit the adoption of different conceptions of management.

Teaching as a Linguistic Process

Cazden (in press) has identified an alternative to the process-product research tradition. This alternative, which is concerned with generating descriptions and characterizations of selected phenomena, has recently emerged as a means of studying teaching-learning processes. Cazden refers to the alternative as a sociolinguistic tradition. Similarly, Green (1983a) cites recent advances in sociolinguistics and ethnography of communication that provide a basis for the study of teaching as a linguistic process. Use of methodologies inherent in this tradition provide a means of gaining insights into the complex processes teachers use in orchestrating the academic and social demands placed on students in classroom environments. These methodologies incorporate sensitive awareness of the problematic nature of the observation itself as inquiry (c.f. Evertson & Green, in press), and also provide means to identify and characterize various management processes such as interaction patterns, instructional sequence patterns, and the evolution of norms and expectations for behavior. In shifting perspective from a process-product research tradition to a view of teaching as a linguistic process, it is possible to increase the power of the observational lens to a microanalytic level at which the complexities of classroom management processes can be characterized.

Recent work on teaching as linguistic process has shown that teachers with the same goals, similar groups of students, and similar content do not deliver lessons in the same way (Golden, 1983; Green, 1983b; Green & Harker, 1982; Harker, 1983; Wallat & Green, 1982). This work demonstrates that the way in which a teacher constructs lessons, signals instructional participation, presents academic information, and uses language influences the nature of student engagement and student learning. Petitto (1982) found that the teacher's perceptions of student ability also influenced the ways in which the teacher taught the same lesson to individual groups of students within a single class. Furthermore, research in this tradition has demonstrated that contrastive models of effective and less effective teaching can be reliably identified (Erickson, 1982; Golden, 1983; Green & Harker, 1982; Green,1983b; Harker,1983). Teaching may be context specific, but as Green (1977) has shown, there are patterns of similarity for both effective and ineffective teachers within lessons, even though they contrast with each other across groups.

Purpose of the Study

The study reported here was undertaken with several objectives in mind. At one level, the researchers shared an interest in exploring ways in which two virtually disparate research traditions might be examined for their compatability in studying a singular phenomenon, e.g. classroom management. Previous studies in each of these traditions have produced two bodies of literature. Findings from each were used in the conceptualization of the present study. Moreover, it was assumed that a convergence of views from the two traditions, as evidenced in the research design, would lead to a clearer conception of the nature of classroom management and the intricate relation between effective management and effective instruction. One particular objective then was to design a means of contributing depth and refinement to a normative model of classroom management. This objective was undertaken through the identification of additional, situation-specific models of classroom management and characterizations of the ways in which teachers in specific classrooms develop management structures, establish management procedures, and manage academic content, and about what occurs as a result of such actions. These results, both those within the situation-specific models of classroom management and those recognized in terms of management variables and student achievement gains, served as the central points of focus in this study.

Four specific purposes have been have been addressed in this study. These are:

1. to identify descriptive model(s) of classroom management and instructional management used by effective and less effective teachers.
2. to compare and contrast the models of classroom management and instructional management used by effective and less effective teachers.
3. to compare and contrast a normative model of classroom management used in management training workshops with the descriptive models demonstrated by both trained and untrained teachers.
4. to explore relationships among classroom management and student achievement variables, and academic and social participation task structures, interaction patterns, and instructional sequence patterns.

Organization of the Report

This Final Report presents a series of data analyses that, when viewed collectively, serve several purposes. They provide (a) a comparison and contrast of a normative model of classroom management with descriptive, situation-specific models of classroom management constructed by teachers and students in their classrooms; (b) a comparison and contrast of models of classroom management and instructional management used by effective and less effective teachers; and (c) an exploration of relationships among classroom management and student achievement variables, academic and social participation task structures, instructional sequence patterns, and interaction patterns. Additionally, findings are presented on the short-term and continuing effects of teacher training and implications are drawn about the nature of classroom management and the conditions necessary for bringing about student learning.

At the outset, the design of this study consisted of a set of pre-planned contrasts. These contrasts have emerged as a component set of analyses and have been organized, by chapter, in a way that each can be viewed as a separate and complete entity in its own right. Nonetheless, each of the chapters also demonstrates and illustrates a different aspect of the inquiry into classroom management phenomena. That is, the analyses form a linked series, each representing a tied element of the whole.

As the reader moves across chapters, certain shifts will be detected in perspective, in language, and in style of presentation. Some of these shifts are subtle; some are dramatic. These discontinuities should not be viewed as a failure to cast the writing in a single hand, but rather as the reflection of a major undertaking in this study -- the merger of alternative research traditions. A brief description of the two alternatives, process-product research and sociolinguistic analyses of classroom processes, are provided in this introductory chapter. Chapter I also provides descriptions of the historical context and setting, sampling procedures, and instrumentation used in the initial phase of data collection, and finally a description of the data bank available for the subsequent analyses.

In essence, classroom management phenomena were observed from two distinct vantage points. The first, more distant of these yielded findings on the effects of training teachers in classroom management, the relationship between classroom management ratings and student achievement outcomes, and the relationship between the model used in training and the model used in practice. These studies follow the process-product tradition of research on teaching. Chapter 2 provides a report of the training study and continuing effects of the training. Chapter 3 provides a comprehensive examination of relationships between the classroom management variables and student achievement.

The second vantage point permitted close, in-depth examination of the management structures that were in place for a small sub-sample of classrooms in the training study. The conceptual approach and methodology that guided this focused exploration are outlined in Chapter 4. The bridge between the two vantage points for observing management processes is reflected in the selection of the sub-sample. That is, the quantitative findings in the initial sets of analyses provided a principled and systematic way of selecting teachers for the later analyses. Teachers were selected who represented different points on a continuum when both management and student achievement were considered. These sampling procedures are also described in Chapter 4 .

The descriptive models of classroom management and instruction in the four selected classrooms are presented in Chapter 5. The focus in these descriptions is on the establishment of norms for academic and social participation, thematic development, and goal-directedness. Illustrations are provided that reveal the intricate interplay of interactions between teachers, students, peer group, and materials, and the ways these interactions lead to construction of academic and social meanings.

In Chapter 6, we examine issues of stability and variability in the delivery of instruction. First, findings are presented on consistency and variability in teacher style over the school year for an effective teacher (trained) and a less effective teacher (untrained). Following this, selected illustrations from the models described in the preceding chapter are presented to isolate and demonstrate the teachers' contributions to lesson structure. Contrasts between effective and less effective teachers permitted the identification of factors within lessons that serve to support and/or constrain students' opportunities to acquire and demonstrate academic knowledge.

In Chapter 7, "Learning That and Learning How in Research on Classroom Processes", we hope to convey a sense of what we have learned -- and to propose what can be gained -- through the collaborative merger of alternative perspectives. A synthesis of the model used in training and the models used in practice is outlined to demonstrate our expanded view of effective management and instruction. Implications are drawn for training, for policy, and for the observation of teaching.

The studies presented in this Final Report resulted through a series of collaborative efforts sponsored by the National Institute of

Education. Collaboration in these projects has held a variety of meanings both to the different participants and across the different phases of the work. It has been fluid, emergent, and on-going. In its most recent phase, state and district administrators, the researchers, and a policy analyst have come together to explore the nature of the collaborations in relation to the improvement of instruction. The product of this phase is a policy handbook, Educational Research and Policy: A Collaborative Approach (forthcoming).

The State Context and Historical Perspective

The Arkansas Department of Education has recognized a need for bringing state of the art knowledge to teachers, administrators, college professors and others involved in training and supervising teachers. This recognition led state administrators to design a program for the improvment of practice that would have an impact on local school districts' policies and on the improvement of academic achievement. A review of literature on effective implementation of change in schools and an assessment of needs within the state led to adoption of a model for a program on effective teaching. This model, drawn from work by Madeline Hunter is depicted in Figure 1.1.

Insert Figure 1.1 about here

Prior to 1982, work had begun within the state on the instructional skills component of the model. Training was conducted in five areas

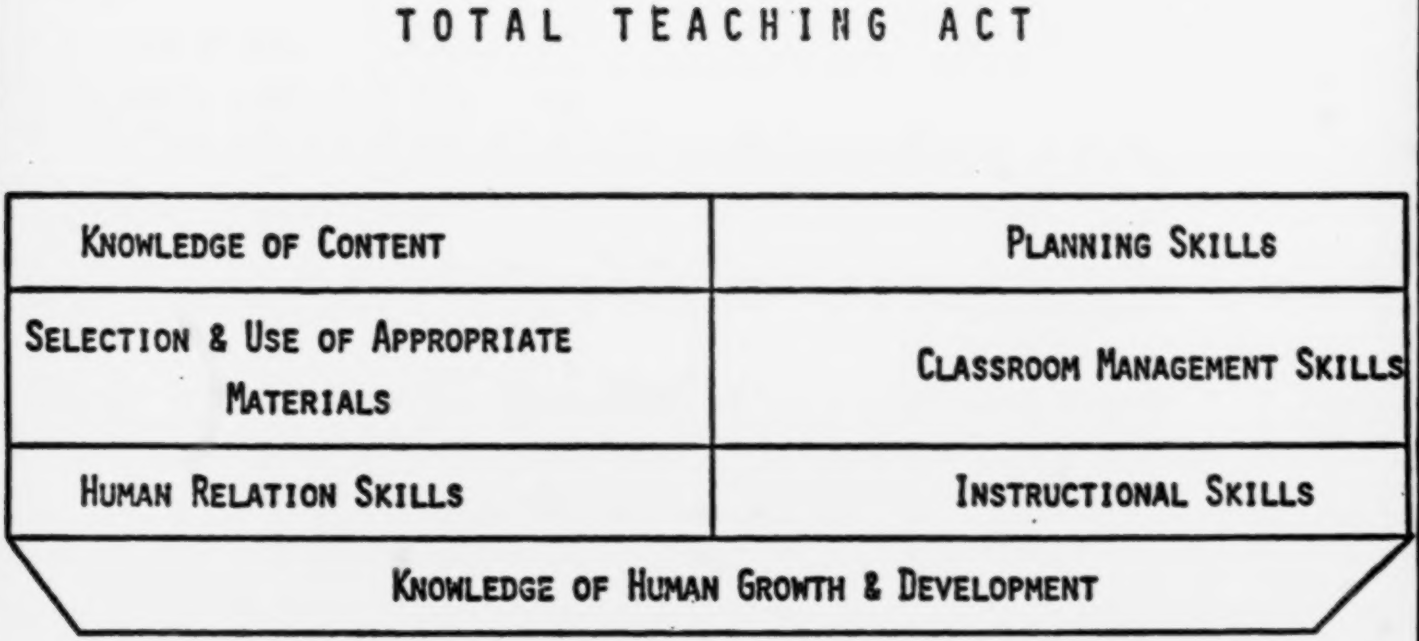
TOTAL TEACHING ACT
KNOWLEDGE OF CONTENT
PLANNING SKILLS
SELECTION & USE OF APPROPRIATE MATERIALS
CLASSROOM MANAGEMENT SKILLS
HUMAN RELATION SKILLS
INSTRUCTIONAL SKILLS
KNOWLEDGE OF HUMAN GROWTH & DEVELOPMENT

Figure 1.1 The "Total Teaching Act": A model adopted from Madeline Hunter's work, the basis for the Arkansas Program for Effective Teaching (PET),

which are complementary to areas defined by classroom management. These five areas were (a) selecting lesson objectives at the appropriate level of difficulty; (b) teaching to these objectives; (c) maintaining the focus of the learner; (d) using the principles of learning: motivation, reinforcement, retention, and transfer; and (e) monitoring and adjusting instruction.

Since its inception in 1979, the instructional skills component has been disseminated to over 10,000 of the state's teachers, 70% of the school principals, and at least 61% of the LEA's have completed the training cycle. In addition, two studies assessing the relationship of teachers' training in instructional skills to their students' performance on achievement tests (Dildy, 1982; Lane, 1982) suggest that the training has had a positive effect on student performance.

In view of the relative success of the instructional skills training at a state-wide level, administrators began to explore a second area of their model, classroom management. At that point, the principal investigator in this study became a resident of the state and participated in a workshop on classroom management research and training sponsored by Southwest Educational Development Laboratory (SEDL). Members of the state department's staff initiated a series of dialogues with her about the nature of effective classroom management. During these dialogues, the findings and procedures used in management training studies conducted in Texas were explored and evaluated. A decision was made to extend and replicate the Texas studies in Arkansas.

Six studies assessing the effects of training in classroom management were completed in several of the Arkansas school districts in order to determine the appropriate elements for a statewide classroom management model. Findings in these validation studies, which generally confirmed the findings from earlier studies conducted in Texas, indicated that for the elementary teacher sample ($\underline{N} = 70$), trained teachers rated significantly higher ($\underline{p} < .05$) than untrained teachers in the following ways: they were clearer in describing objectives and lesson content, they had more efficient and appropriate classroom procedures and routines, and they were more consistent in managing student behavior. In addition, they had less student off-task behavior and more task-oriented classroom focus. For secondary teachers ($\underline{N} = 16$), the trained teachers rated significantly higher ($\underline{p} < .05$) than the untrained teachers in similar ways. In addition, the trained secondary teachers also paced lessons more appropriately, had more efficient routines for lesson management, monitored and controlled student behavior more appropriately, and had more student on-task behavior as well as less student off-task behavior.

In reviewing the findings of the six Arkansas validation studies, members of the state's advisory committees and the principal investigator became concerned about those teachers for whom training was less effective than for others. This concern led to conception of the present study as part of the on-going program of research in Arkansas.

The Local School Setting

One school district that had participated in the secondary level classroom management training just described was selected for the present study. This district was selected for several reasons: (a) the school was eager to cooperate and wanted the information to improve their instructional program, (b) very little in-depth investigation of classroom management practices had been done at the secondary level, and (c) an extensive data bank including audiotape recordings of classroom lessons was available that deserved further analyses.

The school district is located in the far southwest corner of the state of Arkansas. The district has two integrated junior high schools, both of which were used as data collection sites. The student population in the district is composed of 60% white, 33% black, and 7% Mexican-American students.

Data Base

A full account of the sampling procedures and instrumentation adopted for the training study is included as a component of the next chapter. What follows is a brief overview of the data base that was available for the series of linked analyses that make up this Final Report.

The sample of secondary teachers involved in the training study numbered 16. These teachers, including eight English teachers and eight math teachers, were all volunteers. The experimental group had participated in a one day program of classroom management training prior to the opening of school, for which they were provided a stipend, and follow-up workshops approximately two months after school had started. Prior to the classroom management training, all teachers (both experimental and control groups) had participated in a series of workshops focused on instructional skills training. All teachers were female with the exception of one male math teacher. Four of the teachers were black; 12 were white.

Data collected as part of the training study were generated through use of a variety of observational measures. In brief, for each of the sixteen teachers, the following sets were available for each of six observations:

1. Narrative notes with periodic time designations and class activity descriptions for 30-40 minute observations.
2. Classroom rating scales.
3. Three or more student engagement ratings for each class period observation.
4. Summary ratings taken at the end of the six observations per teacher.
5. Verbatim audiotapes per observation.
6. Pre- and post achievement test scores in English and math.

This data set provided the opportunity for comprehensive, in-depth examination and post hoc analyses of the quality of instruction in any of the 16 classrooms. In addition to over 50 hours of audiotape recordings of classroom dialogue, the researchers also had access to curriculum and textbook materials used in any given lesson as well as follow-up interviews with teachers and district administrators.

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Chapter 2

Training Teachers in Classroom Management: An Experimental Study in Secondary School Classrooms

While research has supported the importance of classroom management as a necessary condition for effective teaching, studies which have sought to train teachers in principles of effective classroom management derived from research are rare (Borg & Ascione 1982; Evertson, Emmer, Sanford, & Clements 1983; Emmer, Sanford, Clements, & Martin 1983). Those that have been conducted indicate that recommendations and suggestions for teachers aimed at planning rules and procedures ahead of time, presenting these to students along with expectations for appropriate behavior, maintaining a systematic approach through monitoring student academic work and behavior, and providing feedback to students among other things, can result in improved student task engagement, less inappropriate student behavior and smoother instructional activities when compared with a control group without such training. Experimental field studies showing the efficacy of such training have been completed.

As research on classroom management and effective teaching has progressed (Brophy 1979; Good 1983), there has been at the same time interest from practitioners in using these results in inservice and preservice teacher training. In several instances this interest has been both statewide and nationwide through various divisions of state education agencies, district and regional agencies, and teachers' organizations.

This chapter reports the results of an experimental study undertaken in one of the six Arkansas school districts mentioned in the Introduction of this report. These districts volunteered to be involved in developing and testing statewide a model for improvement of classroom management and instruction usig findings from research. The research which was the focus for the classroom management model was conducted in a large urban school district in Texas (Evertson et al. 1983; Emmer et al. 1982).

Several reasons existed for conducting additional studies in Arkansas schools rather than simply adopting the results of the Texas studies. Those were:

1.) The experimental studies conducted in Texas suggested that brief (1/2 day) workshops and providing teachers with manuals were enough to produce changes in teacher behavior in the desired direction, however, more specific information about the nature of the training was needed to support the development of an exportable statewide model with recommendations and guidelines for use.

2.) The role that classroom observation could play in encouraging teachers to practice and perform the desired behaviors needed to be explored further.

3.) Questions remained about whether findings from field studies conducted in one state, where the participating school district was familiar with the research and used it in its own inservice programs, could be replicated in another state where the material was new but where there had already been extensive statewide training on instructional skills. (i.e., Could classroom management training provide new strategies and techniques to those previously trained in instructional skills?)

4.) In the Texas studies the training workshops and the classroom observations were handled by members of the research team. Developing an exportable model would require that school personnel be trained to provide the workshops for their teachers and to provide follow-up observations and conferences. Hence, guidelines for training and observing would have to be developed. This required a study in which the training phase included careful outlining and specification of the content and activities used in training the teachers to determine the most effective means.

To gain answers to some of these questions the following studies were conducted in six school districts in Arkansas.

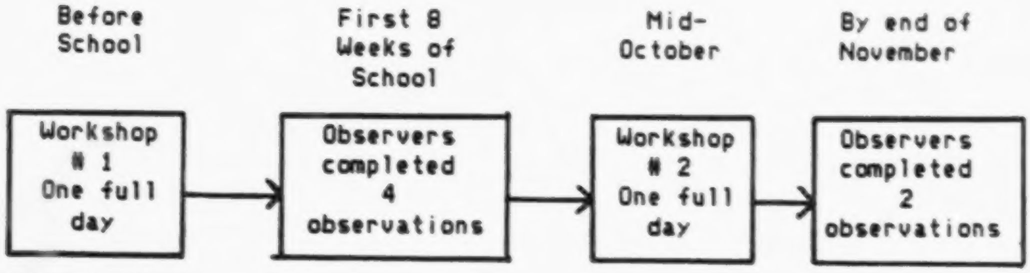
Arkansas Classroom Management Studies

Description of the studies 102 teachers from six Arkansas school districts (70 in grades 1 - 6, with 35 serving in the experimental group and 35 in the control group and 32 teachers in junior high and high school (16 experimental and 16 control) participated in the studies.

Experimental group teachers were each given a one day workshop in their respective school districts using the manuals which had been produced in the Texas studies of effective management. The workshop contained content described in the section below on training. A one day follow-up workshop was conducted in mid-October to re-emphasize management principles and to discuss problems.

Teachers were randomly assigned to the experimental and control groups. Prior to randomization a step was taken to prevent an imbalance across groups on teaching experience, subject area taughte and grade level. Teachers were blocked into matched pairs on these characteristics and then members of each pair were assigned randomly to either control or experimental group. One requirement for participation in the studies was that all (both experimental and control) teachers were to have had previous training in instructional skills through the state's Program for Effective Teaching (PET). This was necessary in order to gain a clear assessment of the relative contribution of classroom management training to the teachers' overall performance.

Timeline of the Studies


Before School
First 8 Weeks of School
Mid-October
By end of November
Workshop # 1 One full day
Observers completed 4 observations
Workshop # 2 One full day
Observers completed 2 observations

Training trainers

Because the intent of the studies was to explore both the content and the processes involved in developing a model for classroom management training which school districts could use, personnel from within each school district had to be trained to carry out the research.

In the summer prior to the 1982 school year, administrative staff members from each of the six school districts met in Little Rock with the principal investigator for a one day training session. One requirement for being designated as a 'trainer' was that the staff member also be certified as an instructor in the state's PET program in instructional skills as well. The reason for this was to capitalize on talent already available in each of the districts, thereby saving time and resources, and more importantly to supply a common orientation and background for the training procedures.

The objective of this session was to provide personnel in each district with specified content and procedures for the 'before school' workshop. (An additional day later in the Fall was set aside for planning the second, follow-up workshop scheduled for mid-October.) Material used to train teachers was taken partially from a booklet (Sanford, Clements, & Emmer, 1981) that contained case studies, procedures, and activities to accompany material in the teachers' manuals (Evertson et al. 1981; Emmer et al. 1982). Additional activities were developed by trainers and incorporated in the training procedures systematically to insure that all teachers received similar content in the workshops.

Content presented to the teachers was outlined in terms of tasks to be accomplished in the order needed to prepare for the start of school and to maintain this start throughout the year. The following outline was developed and used as a guide to specify the content and activities in the workshops and emphasized three key activities: planning before school begins; presenting information about rules, procedures and expectations; and maintaining the learning environment.

Insert Figure 2.1 about here

Training observers

Since the design of the study included observing all teachers (trained and untrained) to determine the degree to which teacher behavior and student task engagement was or was not affected by training, it was necessary to train observers in each of the school districts to carry out this function. Eleven school district administrative staff members met with the principal investigator for a one-day session to be trained to use the classroom observation instruments designed for the study. As in the case of the 'teacher trainers,' the 'teacher observers' were required to be certified observers trained in observation procedures in the state's PET program instructional skills component.

Observers were given manuals containing descriptions of rating scales. They participated in one full day of intensified training using both written scripts of classroom situations and videotapes. Reliability checks during training indicated that by the end of the training all observers had reached 80-90% agreement in use of the items.

Observation measures

Observers were trained to collect data pertaining to the variables of

Figure 2.1

Outline of Workshop Content for Experimental Group

- I. Planning (before school starts)
  - A. Use of space (readying the classroom)
  - B. Rules for general behavior
  - C. Rules and procedures for specific areas
    - 1. Student use of classroom space and facilities
    - 2. Student use of out-of-class areas
    - 3. Student participation during whole class activities/seatwork
    - 4. Student participation in daily routines
    - 5. Student participation during small group activities
  - D. Consequences/incentives for appropriate/inappropriate behavior
  - E. Activities for the first day of school
- II. Presenting rules, procedures, & expectations(beginning of school)
  - A. Teaching rules and procedures
    - 1. Explanation
    - 2. Rehearsal
    - 3. Feedback
    - 4. Reteaching
  - B. Teaching academic content
  - C. Communicating concepts and directions clearly
- III. Maintaining the system (throughout the year)
  - A. Monitoring for behavioral and academic compliance
  - B. Acknowledging appropriate behavior
  - C. Stopping inappropriate behavior
  - D. Consistent use of consequences/incentives
  - E. Adjusting instruction for individual students/groups
  - F. Keeping students accountable for work
  - G. Coping with special problems

interest in classroom management. To do this a variety of measures was used:

Narrative records These records were used to gather qualitative data about classroom activities and behaviors of both teachers and students. During each observation observers recorded notes on narrative record forms. After the observation, the observer used notes to dictate onto audiotape a complete description of the context, activities, etc., in each classroom. Observers were asked to preserve the correct sequence of activities, noting teacher and student behaviors and recording as much classroom dialogue as possible. Training procedures emphasized the dimensions relevant to classroom management skills while also noting the overall organization of the observation period. Observers also collected time information which allowed an estimate of the length of activities and transitions.

Student engagement rates Beginning at a randomly determined time during the first 10 minutes of the observation period, observers stopped notetaking and categorized each student in the room in one of the following three categories of engagement:

1.) Definitely on-task: Student is obviously engaged in the task at hand as defined by the teacher at the time.

2.) Probably on-task: Student appears to be engaged, but there is some question as to whether attention is wandering or not.

3.) Off-task: Student is not engaged in what s/he is supposed to be doing. Student may be talking to a neighbor, doing other work, etc.

A score for each category was obtained by dividing the number of students in each category by the total number of students present yielding a percentage of students classified in one of the above categories. Student engagement rates were recorded on the narrative forms enabling one to see also what activities were taking place at those times.

Classroom rating scales After each observation a set of classroom rating scales was used by the observer to assess teacher and student behavior on several variables relating to aspects of management of student conduct and management of instruction. These five-point rating scales were defined in manuals given to the observers during training. The ratings required observers to rate all teachers on various aspects of lesson management, monitoring student behavior, class climate, handling of student misbehavior, etc. They also included ratings on the degree and frequency of student disruptive or inappropriate behavior.

Summary ratings When all observations were completed in November, a set of 31 summary ratings of each teacher was filled out by the observer who saw a given teacher at least twice. In many instances two sets of ratings were filled out because there were two observers who each saw a given teacher. In these cases, observers were asked not to discuss their ratings and to do them independently. Observer agreement tended to be high on most items. Summary ratings were designed to assess several variables which could be rated only after several visits to a class, such as the overall amount of time students spent waiting for the next assignment, decreases in student attention from the first of the year to later in the school year, smoothness of transitions between activities, or teachers' characteristic methods of giving feedback to students.

Data collection

All observations and data collection began on the first day of school after teachers had received the first workshop. Observers visited classrooms for between 30-45 minutes and tried in elementary classrooms to plan their observations for the beginnings of lessons. In secondary classrooms observations were conducted for the full class period. Observers were not told the identity of the trained teachers and each observer saw both trained and untrained teachers. Teachers likewise were told the design of the study and were asked not to share information or materials from the workshops or to discuss this with observers. Control group teachers were told the general nature of the study and its importance. Their role was explained and they were promised that they would be the next group to receive training.

Observations were planned so that observers saw all teachers four times after the first (before school) workshop beginning with the first day of school and twice after the second workshop given in mid-October. The purpose of observing after the second workshop was to assess the possible effects of workshop two in helping teachers maintain their management skills.

Findings from secondary classrooms

The remainder of this chapter will focus on the quantitative findings from the observation measures used in the secondary classrooms in one school district. The remainder of this report focuses on the data collected from the classes in this particular school district. A framework for qualitative analyses of lesson content in these classrooms is reported in Chapter 4.

The component ratings and student engagement ratings collected in the secondary classrooms were analyzed using two-way analyses of variance, one between-groups factor to assess overall treatment and control group differences and one within-groups factor to determine the difference in mean scores before and after the second workshop.

Insert Table 2.1 about here

Group differences

Of the 35 five-point ratings used to assess teachers' management practices after each observation period, 22 (61%) were significant in favor of treatment group. Additionally, treatment group means exceeded control group means in the predicted direction on all but one of the variables. The $p \leq .10$ level of significance was chosen because the small sample size reduced the likelihood of detecting a significant finding at a more stringent probability level. Nevertheless the acceptance of this significance level did not change the interpretations or patterns of the findings. First we will examine the group differences.

Instructional management Eight of the eleven ratings were significant in favor of the treatment group and the remaining means indicated trends in favor of that group. It may be more illuminating to discuss those three variables.

Table 2.1

Means for Component Ratings for Secondary Classrooms: Experimental and Control Groups X Time of Workshop

	Treatment		Time		Treat. X Time
	Exp.	Con.	Post Treat. Time 1	Post Treat. Time 2	
	n=8	n=8	n=16	n=16	
Instructional Management					
1. Describes objectives clearly	4.95	4.27 **	4.56	4.65	
2. Variety of materials	1.23	1.08	1.31	1.00 *	
3. Materials are ready	4.92	4.65	4.76	4.81	
4. Clear directions for assignments	4.66	4.15 **	4.35	4.46 *	
5. Waits for attention	4.42	3.87 **	4.30	4.00	
6. Encourages analysis	4.34	3.46 *	3.65	4.15 ***	
7. Assign. for different students	1.38	1.17	1.15	1.40	
8. Appropriate pacing of the lesson	4.15	3.41 *	3.73	3.84	
9. Clear explanations	4.45	3.85 *	4.06	4.25	
10. Monitors student understanding	4.46	3.92 *	4.10	4.28	
11. Consistently enforces work standards	4.27	3.41 **	3.68	4.00	
Room Arrangement					
12. Suitable traffic patterns	4.75	4.73	4.98	4.50 ***	
13. Good visibility	4.76	4.81	4.83	4.75 *	
Rules and Procedures					
14. Efficient routines	4.58	4.42	4.47	4.53	
15. Appropriate general procedures	4.57	4.15 *	4.35	4.37	

Table 2.1 (continued)

16. Suitable routines for assigning and checking work	4.53	4.20 *	4.23	4.50 *	
Meeting Student Concerns					
17. High degree of student success	4.36	3.85 ***	4.12	4.09	
18. Level of student aggressive beh.	1.03	1.40 **	1.19	1.25	p=.06
19. Attention spans considered	3.87	3.28	3.46	3.68	
20. Activities related to students' interests	3.82	3.11	3.03	3.90 ***	
Managing Student Behavior					
21. Restrictions on student movement	4.07	2.96 ***	3.48	3.56	
22. Rewards appropriate performance	3.93	3.08	3.67	3.34	
23. Signals correct behavior	3.27	2.08 ***	2.98	2.37 **	
24. Consistency in managing student behavior	4.06	2.97 **	3.60	3.43	
25. Effective monitoring	4.05	3.33 *	3.70	3.68	
Student Misbehavior					
26. Amount of disruptive behavior	1.16	1.41	1.33	1.25	
27. Amount of inappropriate behavior	1.95	2.76 **	2.40	2.31	
28. Stops inappropriate quickly	3.10	3.23	3.61	2.71 **	
29. Ignores inappropriate behavior	2.51	4.10 **	3.37	3.25	

Table 2.1 (continued)

Classroom Climate				
30. Conveys value of the curriculum	4.48	3.60 **	4.03	4.06
31. Task-oriented focus	4.53	3.85 ***	4.26	4.12
32. Relaxed, pleasant atmosphere	4.52	3.82 **	4.16	4.18
Miscellaneous				
33. Listening skills	4.08	3.30	3.72	3.65
34. Avoidance behavior during seatwork	1.28	1.87 ***	1.69	1.46
35. Participation in class discussions	3.61	3.14	3.38	3.37
% of Students Engaged				
36. % of Students off-task	7.09	14.79 **	9.32	12.56
37. % of Students probably on-task	4.96	9.68	5.21	9.44
38. % of Students on-task	87.95	75.53 **	85.47	78.00 **

(Means for the component ratings are based on 5-point scales. 1 = low occurrence or least characteristic and 5 = high occurrence or most characteristic.)

*** = p= ≤ .01
** = p= ≤ .05
* = p= ≤ .10

Each of these had to do with materials and their use. The means indicate that in neither group did the variety of materials used exceed the minimum, nor were there many assignments for different students. This might be explained by the fact that these were secondary classrooms which were departmentalized and ability grouped with relatively focused curricula. Few teachers departed from the basic text in their classes and most of the instruction was tied directly to the assigned text.

Room arrangement Neither variable was significant for the arrangement of the room. Again this is most likely due to the fact that most secondary classrooms leave little flexibility in the ways one can arrange the classroom.

Rules and procedures Appropriate procedures and suitable routines for assigning and checking work were the two significant variables of the three listed under this heading. These procedures were also emphasized heavily in the workshops.

Meeting student concerns Although level of student aggressive behavior was minimal in either group (1.03 & 1.40 on a 5-point scale), it appeared significantly more in the control group classes. This type of misbehavior more often took the form of sassing or defying the teacher or being generally uncooperative or belligerent. The treatment group appeared to be able to maximize the match between materials and students' skill levels such that there appeared to be more student success in their classrooms.

Managing student behavior By far the greatest mean differences for treatment and control groups appeared for this group of variables. The treatment group exceeded the control group on all the ratings and significantly so for four of the five. One strong effect of the training appeared to be the direct management of student behavior even to restricting students' freedom of movement in and around the classroom. Still these restrictions did not appear to have an effect on classroom climate as will be seen later.

Student misbehavior Misbehaviors were divided into two types depending upon the severity. Disruptive behavior was that problematic student behavior which actually disrupted the class activities. As can be seen from the tables, this type of misbehavior seldom occurred in any of the classrooms. However, inappropriate student behavior, behavior which involved inattention, uncooperativeness, chatting with friends, etc., occurred slightly more frequently and significant differences were found between treatment and control groups. Treatment teachers had less inappropriate behavior in their classes and they were less likely to ignore it when it did happen. Interestingly the quickness with which such inappropriate behavior was stopped did not differ between the two groups and both groups tended to be less diligent about putting a stop to inappropriate behavior as time went on.

Classroom climate Treatment teachers received significantly higher ratings for all the classroom climate variables. These findings suggest that in spite of the fact that they were rated significantly higher on managing and controlling variables, the classroom atmosphere did not appear to suffer. Students also seemed to adopt a more task-oriented attitude including greater cooperation in doing seatwork assignments.

Student engagement Treatment classrooms had significantly fewer students off-task (7.09% as opposed to 14.8% in the control group classes). Since the average class size was 23, this would amount to an average of between 1 to 2 students off-task in the trained teachers' classrooms, but between 3 to 4 students off-task in the untrained teachers' classrooms. Findings were parallel for on-task behavior. Eighty-eight percent of the students in treatment classrooms were on-task (over 20 of the students) whereas only 76% of the students in the control classes were on-task (only 17 of the average 23 students). While these differences appear small, when calculated over the period of several months they represent a significant problem for control and attention. Not surprisingly, on-task behavior in both treatment and control groups dropped across time, probably an indication that there is a natural letdown as the year progresses. Some support for this phenomenon comes from Evertson & Veldman (1980) who found an increase in mild misbehaviors and evidence that life in classrooms tended to deteriorate toward the end of the year though not dramatically. What is more, these trends tended to obtain in both the classrooms of effective and ineffective teachers.

Differences across time

Nine of the 35 ratings (26%) showed differences for time of year across the two groups. The purpose of examining these differences was to see if the trained behaviors maintained and/or if the second workshop was effective in helping to sustain the desired behaviors. The data indicate that for five of the variables behaviors did drop off as time progressed. The variety of materials used in classes changed from a small variety to the minimum, usually only the textbook. Traffic patterns and the degree of visibility the students had to the instructional areas were judged to be less effective as time went on. Also teachers tended to do less signaling of correct behavior and to stop inappropriate behavior less quickly. However, four of the significant differences showed an improvement between the first and second workshops. Teachers improved the clarity of their directions for assignments, encouraged student reasoning and provided rationales, and provided activities more closely related to students' backgrounds and interests. Teachers were also judged to have more suitable routines for assigning and checking work as time went on.

Only one interaction appeared significant between treatment group and time of workshop and that was the incidence of student aggressive behavior. Aggressive behavior was almost nonexistent in the treatment group classrooms, but tended to increase with time in the control group classes.

Summary observer ratings

These ratings were filled out by observers at the end of the data collection period. One set was completed for each teacher and they served as a summary of observer impressions from the first of the year.

Insert Table 2.2 about here

Nine of the 31 ratings (29%) were significant and the patterns tended to support the component ratings just discussed. Treatment teachers were perceived to exceed the control group in two general areas: 1.) the physical management of space and student behavior and 2.) the management of academic work and student accountability for work. Treatment teachers were

Table 2.2

Experimental and Control Group Comparisons for Summary Observer Ratings of Secondary Classrooms

	Experimental		Control		
	X	SD	X	SD	p ≤
1. Classroom is ready for school	4.69	.53	3.94	1.12	.10
2. Class gets out of hand	1.31	.70	2.37	1.38	.07
3. Students wander around the room	1.38	.69	2.25	1.31	
4. High noise level	1.56	1.05	2.50	1.31	
5. Students talk during seatwork	3.56	.90	3.13	.69	
6. Efficient transitions between activities	4.81	.53	3.81	1.13	.04
7. Students come up for help frequently	1.63	1.38	2.31	1.13	
8. Teacher ignores "come-ups"	1.38	.58	1.63	1.06	
9. Teacher sends "come-ups" back to seats	1.38	.52	1.81	.53	
10. Teacher answers "come-ups" questions	2.56	1.91	4.13	.92	.05
11. Students leave their seats to get help	1.86	1.19	2.38	.95	
12. Students hold up hands to get help	3.63	1.36	3.50	.87	
13. Students call out to get help	1.69	.88	2.50	1.16	
14. Teacher leaves room often	1.31	.37	1.19	.26	
15. Teacher stops disruptive behavior quickly	4.63	.88	3.31	1.41	.04
16. Good use of space	4.56	.42	3.88	.88	.06

Table 2.2 (continued)

17. Teacher plans enough work	4.94	.18	4.13	1.36	
18. Teacher allows activities to go on too long	1.75	.85	2.44	1.12	
19. Assignments are too hard	2.06	1.12	2.50	.71	
20. Assignments are too short and easy	1.13	.23	1.81	.96	.07
21. Teacher checks for understanding	4.13	.79	4.25	.71	
22. Teacher keeps students responsible for their work	4.56	.62	3.75	.80	.04
23. Teacher is confident	4.44	1.05	4.69	.37	
24. Teacher is warm & pleasant	4.50	1.04	4.06	.78	
25. Teacher is enthusiastic	4.31	.84	4.00	.71	
26. High average attention	4.44	.50	3.81	.92	
27. Students begin work quickly without dawdling	4.63	.52	3.69	1.03	.04
28. Short amt. of time waiting for next assignment	3.75	.85	2.88	1.51	
29. Student attention stays high from the beginning of school	1.69	.46	1.50	.46	
30. Attention improved from the first of school	1.44	.42	1.38	.52	
31. Attention level remains the same from the first of school	1.38	.35	1.19	.37	

The first 28 items were based on 5 point scales. 1 = low occurrence or least characteristic; 5 = high occurrence or most characteristic.

Items 29, 30, & 31 are based on 2 point scales. 1 = no; 2 = yes.

seen as having their classrooms ready for school, using their space more efficiently, having more efficient transitions between activities, stopping student disruptive behavior quickly, not allowing the class to get out of hand, and not dealing with students who continually come up for help. Assignments in the treatment classrooms were judged to be more appropriate (i.e., not too hard or too easy), students cooperated in getting seatwork done without dawdling, and students were kept accountable for their work and assignments.

Discussion

The question of whether training in classroom management techniques could provide additional skills to teachers over and above their training in instructional skills seems to have been answered, at least indirectly by the results of this study. Since both treatment and control groups had received extensive training in instructional skills, the treatment group differences at the end of the management training study indicate that classroom management training enhanced these teachers' skills.

We also wanted to learn whether management training would enhance differences in the skills of secondary teachers and if this would coincide with increases in student on-task behavior. The answer to this question is apparently 'yes.' The question of whether management training sustains over a significant part of the year can be answered with less assurance. There does appear to be a decrease in some areas (i.e., stopping inappropriate behavior quickly) while others maintain. However, there are increases in other areas. Routines become more efficient, clarity of directions improves, and teachers apparently use more questions which elicit rationales and higher order thinking skills.

While there are some limitations to the study, namely that we have no pre-measures of teachers' performance before training, nevertheless it is assumed that the matching procedures used and the fact that the most powerful prior training (instructional skills) was held constant would serve as a control for initial differences. It is always possible that this assumption is unwarranted. However, preliminary data from the elementary classrooms show similiar differences between treatment and control groups.

The findings nevertheless suggest that management training similar to that described here is both a successful staff development activity and a relatively cost efficient one. School districts with trained personnel can accomplish the required teacher training and follow-up. What is more, these studies provide evidence that we can export findings from tightly controlled research to the field with some success. Part of this success no doubt lies in the idea that none of the trained behaviors are startling or new. Most of these behaviors lie within the repetoires of the average classroom teacher and are recognizable as legitimate aspects of teaching. It is likely that ordering them within a model that suggests both the sequencing and importance of each behavior and by providing the rationales for their use can act as a heuristic tool. It is with this heuristic, or framework, that teachers can make the critical decisions about their teaching that are essential to the conduct of their craft.

This chapter has reported the findings from the observational data from the experimental and control classrooms. Because these process differences were found between the two groups of classes, the second question of importance became whether or not there were also differences in achievement for the students in each of these groups of classes. Chapter 3 reports the analyses of student achievement in the classrooms and comparisons of experimental and control differences.

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Chapter 3

Teacher Training and Student Achievement

The experimental training study cited in Chapter 2 is one of a handful of recent exemplars in research on teaching that test the causal nature of the relationship between teaching behaviors and student learning. Earlier work in the early to mid- 1970's by Brophy and Evertson (1976), McDonald and Elias (1976), Stallings and Kaskowitz (1974) and Soar (1973) was correlational in nature and yet operated from an essentially causal stance. The very use of the term "teaching effectiveness" implies causal directionality from teacher behaviors to student outcomes. Such an implicit causal model is appropriate as a heuristic during the formative stages in the development of a field such as research on teaching. To argue causal principles in the context of correlational data is probably little different from what sociologists and economists have done for decades.

The key point is that the causal framework itself must be grounded in theory. The theory for consideration of teaching effects on student behavior can be traced to many sources, including John Carroll's model of school learning (1963) which maintains that the amount of student learning depends on, among other things, the child's opportunity to learn. The teacher in the classroom with the student has a great deal to do with opportunity to learn, hence teaching effects on student learning. Indeed, the remainder of this report provides an indepth look at the intervening processes embodied in students' opportunity to learn. Even such an oversimplified presentation does not deny the existence of other influences on student academic growth...factors such as home influences, prior learning experiences and the motivational state of the student; it does, however, assert the existence of teaching effects. Nor does such a notion deny the reciprocal effects of student behavior on teacher behavior (Fiedler, 1975).

In any case, those involved in research on teaching since the mid 1970's were not content to explore teaching effects from correlational data. They reasoned that if the causal principles they interpreted from their correlational data were correct then it should be possible to observe particular results in true experiments, that is, to manipulate teaching behaviors of interest and observe consequential changes in measures of student performance. If such a linkage could be established empirically, the discipline would have additional evidence of the causal effect of specific teaching behaviors, and there would be an agenda suggested for teacher education. The final outcome should be improved understanding of teacher effectiveness and the determinants of student growth.

Several studies since the late 1970's have taken on the task of testing the causal efficacy of correlational findings. These studies share a number of methodological and substantive aspects, though notable differences exist also. The first such experiment by Anderson, Evertson, &

Brophy (1979) was carried out in the context of first grade reading instruction. This was followed by the Crawford, et al., (1978), and Good (1978) studies of causal effects in, respectively, third grade reading and fourth grade mathematics instruction. The Gage and Coladarci (1980) experiment was conducted in the elementary grades, as was the Evertson, Emmer, Sanford & Clements (1983) study. The Stallings et al. (1979) study was an intervention in secondary school remedial instruction in reading. The current study was done in seventh, eighth, and ninth grade language arts and math classes.

The points in common among these seven experiments are noteworthy:

(1). All employed random assignment of teachers to trained and untrained groups; some (e.g., the current study and the Crawford, et al. (1978) study used stratified random assignment.)

(2). The content of the training/intervention in all studies was based on empirically established process-product findings.

(3). All studies collected objective classroom process data to assess the fidelity of training implementation.

(4). Of the studies that analyzed achievement gains, each study that showed treatment implementation also showed detectable effects on student achievement. One study (Gage & Coladarci, 1980) found lack of implementation and no effects on student achievement, although even in that study, the prior correlational results were replicated. Another study (Evertson, et al., 1983) did not examine achievement, but did report process differences in favor of trained teachers classes and changes in student engagement in academic activities.

Taken together, these experiments form a relatively convincing argument that teaching performance can be improved and that such improvement can reasonably be expected to lead to greater student academic growth. This seems non-trivial in such times when "excellence in education" commands much attention.

The present study examined process differences in training implementation as previously noted. Since those analyses indicated consistent and statistically significant treatment effects on teaching behavior, the next logical step was to test the sample data for detectable effects on student achievement gains.

Student growth in academic achievement was tested several ways. Students' raw gain and regression-adjusted gain on a criterion-referenced achievement test were examined. Analyses were carried out on students "pooled" without regard to classes and were also examined between-class variance (in which students were assigned their class mean for analysis). Finally remaining classes were compared in a one-to-one comparison procedure which common test scores were available. All of the analyses will be described in more detail in the results section.

Method

This report focuses on achievement scores. Accordingly, the methods section deals with design and procedures as applied to the analysis of achievement gains. Chapter 2 dealt with the description of treatment assignment, process data collection, and treatment effects on classroom behavior. This study was carried out in regular public school classrooms with as little intrusion as possible on the normal educational process. As a result, the achievement scores available for the 16 classes in the study were those which the school district already had. The 16 participating classes had not all been pre- and post-tested with the same instruments. This complication of the achievement analyses reflects the "real world" situation in which measurement is typically not geared to research purposes. Ten of the sixteen classes had pre and post data from the distict's criterion-referenced achievement test (six language arts classes and four mathematics classes). The other six classes were measured at post-test with the Stanford Research Associates (SRA) standardized norm-referenced achievement test and, for pretest data, the Arkansas State Assessment Test of Basic Skills (SATBS) was available.

The experimental design can be represented below for the 16 participating teachers and their classes.

Insert Table 3.1 about here

Each row in the above table represents available data for a single class. The CRT analyses in language arts consisted of two experimental (trained) classes and four control classes. The Criterion-Referenced Test (CRT) math analyses compared two experimental and two control classes. For the remaining six classes, prescores on the SATBS were examined; all were ninth grade classes. Two pairs of classes were chosen for class-by-class comparisons. The selection was based on determination of which of the two available experimental classes had prescores that were closest (based on the mean) to the prescore of the control group class in the appropriate

Table 3.1

Experimental Design: Matching of Pre- and Post Tests and Classes

Pretest Measures				Posttest Measures			
1982 CRT		1982 SATBS		1983 CRT		1983 SRA	
Math	LA	Math	Reading	Math	LA	Math	Reading/LA
	E				E		
	E				E		
	C				C		
C				C			
C				C			
	C				C		
E				E			
E				E			
	C				C		
	C				C		
			E				E
			E*				E*
			C*				C*
		E				E	
		E+				E+	
		C+				C+	

E = Experimental group (trained)
C = Control group

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* These classes were used in class-by-class comparisons because their pre-scores in reading matched closely.

+ These 2 classes were used in the math class-by-class comparisons because their pre-scores matched closely.

subject matter. This design and the attendant analyses allowed the use of 14 of the 16 classes. Two experimental classes remain unanalyzed. The metric of the CRT scores (pre and post) was the percentage of objectives mastered. The SATBS pre-scores were also represented as percentage of objectives passed. The 1983 SRA scores made available were originally nationally normed percentiles. These were transformed into equal interval normal curve equivalent (NCE) scores for inferential analyses.

In these data, there is a one-for-one correspondence between teachers and classes, so the terms "between-teacher" and "between-class" may be used interchangeably. In order to reflect the substantive questions of interest, the data analysis procedures pursued several lines of inquiry. The three approaches that were used included:

(1) analysis of student raw gains and regression adjusted performance (ANCOVA) without regard to classrooms,

(2) analyses of between-class variance on raw gain and regression-adjusted gain (ANCOVA), and

(3) paired comparisons, class-by-class, of the two pairs of classes with SATBS pre-scores and SRA post-scores (ANCOVA and, for reading and language arts, multivariate ANCOVA). The analyses will be explained in more detail in the results section.

Students scores were preserved for achievement analyses if they had valid data for both pretest and posttest. A total of 272 students in the 16 classes met this criterion, for an average of 17 students per class (range: 12-24). Math classes were tested for effects on math scores and English classes for effects on language arts and/or reading scores. Of the

272, 164 students were in English classes and 108 in math. There were 126 students in the experimental classes and 146 in control classrooms (8 experimental and 8 control classes). The sample contained 108 seventh graders, 70 eighth graders, and 94 ninth graders.

The remaining two sections of this report present the results of the inferential analyses and discussion of those results.

Results

Analyses of students without regard to classes. These "pooled" analyses examine student growth over a 12-month period during which the experimental treatment was implemented (the 82-83 academic year). Students are pooled into the analyses without regard to the classrooms to which they were assigned. The students with CRT measures both pre and post were analyzed for raw gain and for ANCOVA-adjusted performance.

Table 3.2 below gives the means, standard deviations, and *Ns* for students assigned to trained and untrained teachers' classrooms on mathematics and language arts CRT gains.

Insert Table 3.2 about here

The raw gains in both math and language arts showed statistically significant mean differences in favor of students in the trained teachers' classes (reading: F= 32.82 with 1, 116 df and p $<$ .0001; math: F= 4.26 with 1, 66 df and p = .043).

The next analysis was an analysis of covariance of language arts and math CRT scores. Table 3.3 below shows the pre-post correlations for the

Table 3.2

Raw criterion-referenced test (CRT) gains by treatment group.

	Language arts gains - CRT scores		
	X	SD	N
Experimental	10.724	6.750	29
Control	-0.798	10.105	89

	Mathematics gains - CRT scores		
	X	SD	N
Experimental	5.529	19.171	34
Control	-2.971	14.476	34

total sample and for each treatment group separately.

Insert Table 3.3 about here

The correlations for language arts are higher than for math. The proportion of pre-post variance that is shared ranges from .46 to .90.

The homogeneity of slopes analyses that preceded the ANCOVA were non-significant (F= 0.43 with 1,64 df and $p \leq .52$) in mathematics and (F= 0.27 with 1, 114 df and $p = .61$) in language arts.

Since the pre-post relationships are linear and since the slopes do not appear to differ across treatment groups, classical ANCOVA models were analyzed. Results are shown in Table 3.4 below.

Insert Table 3.4 about here

Table 3.4 shows that the adjusted means favor the experimental group in both math and language arts. The 11.41 point difference in language arts is highly significant, while the 5.45 mean difference in math has an associated p-value of .14.

The next analyses address treatment differences in the context of between- class variance. Since students were instructed in classes and since classes were assigned to treatment conditions (and the treatment was delivered to and by teachers), it could be argued that the between-class analyses are more appropriate than the previous, pooled student-level analyses. In the between-class analyses, new variables were created

Table 3.3

Pre-test and Posttest Correlations for Criterion-referenced Test (CRT) Scores

	Experimental Group		Control Group		Total Sample	
	r	N	r	N	r	N
Math	.68	34	.78	34	.71	68
Language Arts	.95	29	.92	89	.91	118

All the above correlations are statistically significant.

Table 3.4

Analysis of Covariance Results for Criterion-referenced Test (CRT) Math and Language Arts

Source	SS	Df	MS	F	p
Math					
Constant	4459.47	1	4459.47	20.41	<.001
Covariate	15,789.89	1	15,789.89	72.27	<.001
Treatment	488.88	1	488.88	2.24	.14
Language arts					
Constant	620.98	1	620.98	7.14	.009
Covariate	58,906.45	1	58,906.45	667.75	<.001
Treatment	2845.36	1	2845.36	32.74	<.001

Group Means

	Observed	Adjusted
Math		
Experimental	47.71	44.95
Control	47.65	50.40
Language arts		
Experimental	43.40	43.00
Control	53.17	54.41

whereby each student was assigned his or her class mean on the CRT pre and post scores. Therefore, students were weighted equally in the analyses, and classes were weighted according to the number (N) of students per class (and the denominator df is determined by the total valid N of students). Between-class raw gains and ANCOVA-adjusted means were analyzed.

Table 3.5 below presents the raw CRT gains for experimental and control groups.

Insert Table 3.5 about here

The mean gain differences in Table 5. are highly statistically significant. In lanaguage arts, F = 479.71 with 1,116 df and $p \leq .0001$, and in math, F= 110.04 with 1, 66 df and $p \leq .0001$. However, it should be noted that the language arts data show heterogeneous variances. One problem inherent in analysis of raw gain in regression to the mean. In fact, usually the group with the lower prescore shows the greatest gain. In these data, the treatment group did have the lowest prescore in both math and language arts. In language arts the prescore difference of 44.20 for the control group and 42.45 for the experimental group is not quite significant ($p \leq .087$), although in mathematics the difference of 50.68 (control) vs. 42.12 (experimental) is highly significant ($p \leq .0001$).

The use of regression-adjusted gains via ANCOVA allows the effect of the prescore to be removed from the estimates of growth. Although this procedure does not "erase" a priori between-group differences, it does estimate treatment-related performance on a measure that has been forced to

Table 3.5

Raw between-class CRT Gains by Treatment Group

	X	SD	N
Language arts			
Experimental	10.727	0.020	29
Control	-0.800	2.836	89
Math			
Experimental	5.531	2.828	34
Control	-2.974	3.788	34

correlate zero with prescores. The raw gains correlate negatively with prescores, another manifestation of the problem of regression to the mean with raw gains ($r = -.52$ in math and $r = -.30$ in language arts).

Figures 3.1 and 3.2 below show the raw pre and post between-class means in the two subject matter areas (to illustrate the raw gains).

Insert Figures 3.1 & 3.2 about here

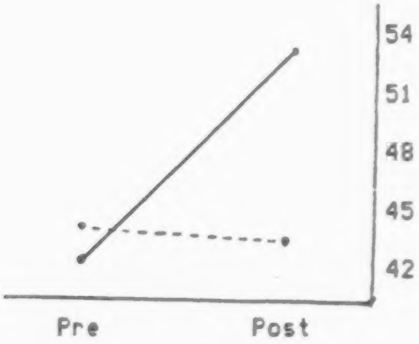
Analyses of treatment effects on between-class variance. The next analyses are ACOVA tests of treatment effects on between-class variables. Table 3.6 presents the pre-post correlations, and Table 3.7 shows the ANCOVA source table, observed means and adjusted means.

Insert Table 3.6 about here

The perfect correlations in Table 3.6 are due to the fact that they were based on only two classes. With the analysis of between-class scores, the scatterplot is composed of 2 pairs of pre-post measurements, hence, results show a straight line connecting two points (perfect correlation). The ANCOVA (with a pooled slope) is based on 4 classes in math (pre-post r of .37) and 6 classes in languages arts (pre-post $r = .51$), so those estimates of between class performance do represent indices of over and underperformance in relationship to a regression line.

The usual homogeneity of slopes analyses cannot be performed when the within-group N's are based on 2 classes (the error SS are zero since both

Figure 3.1 Language Arts between-class Means on Pre- and Posttests.

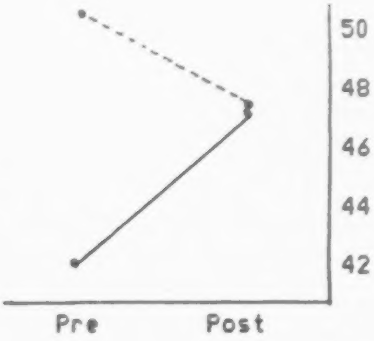


Solid line - Experimental
Dashed line - Control

Means

	Pre	Post
Experimental	42.45	53.17
Control	44.20	43.40

Figure 3.2 Math between-class Means on Pre- and Postests.



Solid line - Experimental
Dashed line - Control

Means

	Pre	Post
Experimental	42.12	47.65
Control	50.68	47.71

Table 3.6

Pre-test and Posttest Correlations of between-class CRT Scores

	Experimental Group		Control Group		Total Sample	
	r	N	r	N	r	N
Math	1.00	34	1.00	34	.37	68
Language arts	1.00	29	.85	89	.51	118

points perfectly fit the regression line). Therefore, we make an untested assumption when we proceed to ANCOVA - the assumption is that both the control and experimental groups are well-represented by the pooled regression slope. Since the choice is either to make this assumption or to avoid using ANCOVA altogether in this analysis, the assumption seems reasonable on theoretical grounds.

In language arts, the homogeneity of slopes was tested; results indicated little variance associated with differences between groups on pre-post regression (F= .791, df = 1,114, p= .38).

Table 3.7 below gives results of the between-class ANCOVA results. The results in Table 3.7 indicate that the between-group variance is overwhelmingly greater than error. The adjusted means favor the experimental groups in both math and language arts. The significance levels are beyond p = .001.

Insert Table 3.7 about here

Class-by-class paired comparisons. The remaining analyses are of the classes measured with SRA at posttest and SATBS at pretest. The remaining six classes consist of three each in math and in language arts. One of the three in math and in language arts was a control group class and the other two were experimental (see Table 3.1). The decision was to carry out paired class-by-class comparisons by selecting for analysis one of the two available experimental classes. The one with the prescore mean that

Table 3.7

Analysis of covariance: Between-class analyses for math and language arts

Math

Source	SS	df	ms	F	p
Constant	620.15	1	620.15	416.03	<.001
Covariate	1554.03	1	1554.03	1042.52	<.001
Treatment	1333.39	1	1333.39	894.51	<.001
Within cells	96.89	65	1.49		
Language arts					
Constant	144.12	1	144.12	27.23	<.001
Covariate	1725.19	1	1725.19	325.91	<.001
Treatment	2672.45	1	2672.45	504.87	<.001
Within cells	608.74	115	5.29		

Observed and adjusted means for
experimental and control groups in math and language arts

Math	Observed	Adjusted
Experimental	47.65	59.61
Control	47.71	35.75
Language arts		
Experimental	53.17	54.25
Control	43.40	43.05

was closest to the control group mean was chosen for the class-by-class analysis.

Tables 3.8 and 3.9 below show the descriptive and inferential results for the two paired class-by-class analyses. It is recognized that in these analyses, teachers are confounded with treatment, so that it is not possible to separate the two sources. Even if viewed only anecdotally, the results still may provide additional pieces of information regarding achievement effects in this study.

Insert Table 3.8 about here

In math, the homogeneity of slopes analyses indicated a trend toward heterogeneous within-grou]p slopes ($p = .099$). Additional within-group analyses showed that the experimental group had a lower pre-post slope and a higher intercept than did the control group. This finding suggests that the treatment may have been relatively more effective with the experimental group students who were initially the lower achieving students. However, since this trend for ATI (aptitude-treatment interaction) was not statistically significant, the usual ANCOVA model was also analyzed using a pooled slope for experimental and control groups. That analysis did not indicate any treatment effects, although the adjusted (posttest) means did favor the control group very slightly. The experimental group mean was lower on pre-scores.

Table 3.9 below presents results of the paired class-by-class (multivariate) analyses in reading and language arts.

Table 3.8

Math analyses for N = 2 classes and 26 students

	Pre-test Mean	Post-test Mean
	SATBS (% mastered)	SRA NCE scores
Experimental	43.08	25.38
Control	46.15	28.31

Pre-test Post-test $r = .71$
$N = 26$
$p = < .001$

Homogeneity of slopes: $F(1,22) = 2.96$, $p = .099$

ANCOVA

Source	SS	df	ms	F	p
Constant	213.25	1	213.25	2.62	.119
Covariate	1854.54	1	1854.54	22.77	<.001
Treatment	15.94	1	15.94	.20	.662
Within cells	1873.31	23	81.45		

Post-test means

	Observed	Adjusted
Experimental	25.38	26.06
Control	28.31	27.63

Insert Table 3.9 about here

The last analysis of reading and language arts took the form of multivariate ANCOVA. The reading and language arts class-by-class paired comparisons suggested that homogeneity of slopes was a reasonable assumption. The adjusted means from the subsequent multivariate ANCOVA favored the control group in reading and the experimental group in language arts; the results were non-significant overall, and for each dependent variable considered singly.

Discussion

While the current analyses could be criticized on the grounds of low N of classrooms in some of the tests of treatment effects, it should be pointed out that these are not isolated results. The analyses of classroom process differences showed significant and meaningful treatment effects on measures of implementation. The randomly-assigned experimental group teachers were performing the recommended behaviors consistently more often than the control group teachers. Since the content of the training concerned effective classroom management practices, the process data supported the contention that the trained teachers classes were better managed than the control classrooms. As has been pointed out frequently in the literature (for example see Crawford and Robinson, 1983) management practices are not independent of pedagogical effectiveness. Therefore, it is not unreasonable to expect that better managed classrooms would have more time available for instructional activities and, hence, more

Table 3.9

Multivariate analyses for reading and language arts
N = 2 classes and 35 students

	Pre-test means	Post-test means (NCE)	
	SATBS (% mastered)	SRA reading	SRA language arts
Experimental	53.47	34.00	36.71
Control	43.39	33.06	27.22

Correlations among tests
N=35

	'82 SATBS (Reading)	'83 SRA (Reading)	'83 SRA (Language arts)
'82 SATBS (Reading)	(1.00)	.71**	.73**
'83 SRA (Reading)		(1.00)	.64**
'83 SRA (Language arts)			(1.00)

Multivariate homogeneity of slopes

Test name	Value	Approx. F	df	error df	p
Pillais	.06325	1.01282	2	30	.375
Hotellings	.06752	1.01282	2	30	.375
Wilks	.93675	1.01282	2	30	.375

Univariate homogeneity of slopes

Reading F = 0.98747, p =.328
Language arts F = 0.19989, p =.658

Table 3.9 (continued)

Multivariate ANCOVA

Effect: Treatment

Test Name	Value	Approx. F	df	error df	p
Pillais	.12694	2.25369	2	31	.122
Hotellings	.14540	2.25369	2	31	.122
Wilks	.87306	2.25369	2	31	.122

Univariate Test of Treatment Effects

Reading: F = 1.63670, p = .210

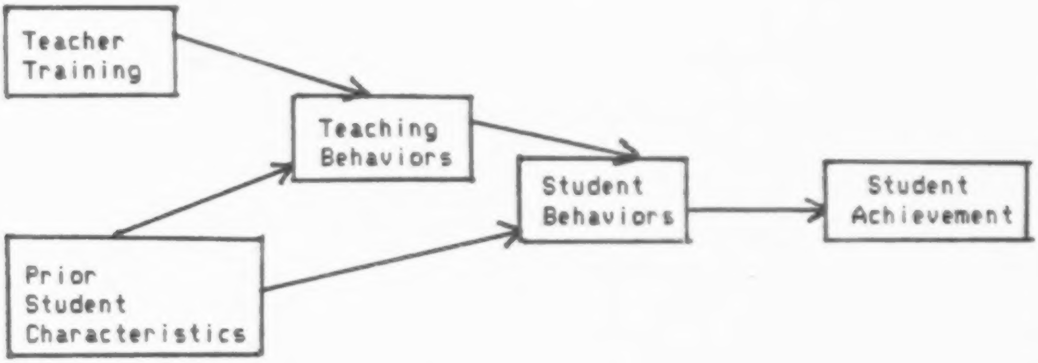
Language arts: F = .92615, p = .343

Post-test Means

	Observed	Adjusted
Reading		
Experimental	34.00	31.31
Control	33.06	35.60
Language arts		
Experimental	36.71	33.86
Control	27.22	29.91

opportunity to learn. With more focus on instructional activities, greater student learning could be expected.

The model of cause and effect linkages suggested by this research can be expressed in the diagram presented below.



This model makes explicit the fact that teacher training can only directly affect teacher behaviors. The effects on student achievement are indirect and must be mediated by the teachers' and also the students' classroom behaviors. While it is probably true that student behaviors also causally impact on teacher behaviors, such reciprocal causality has not been tested experimentally (for correlational data that bear on this issue see Brophy, Evertson, Anderson, Baum & Crawford, 1981). When studies have been done that manipulate student behavior directly and observe the effects on subsequent teacher behavior, then we will have evidence for drawing a causal path from student behaviors back to teacher behaviors.

The table below summarizes the inferential analyses of achievement effects.

Insert Table 3.10 about here

Table 3.10

Summary of Achievement Analyses

	Exp. Group	Con. Group
CRT Scores Across Classes		
Raw Gains:		
Language Arts	Higher *	
Math	Higher *	
ANCOVA - Adjusted Gains		
Language Arts	Higher *	
Math	Higher (ns)	
CRT Scores, Between-Class Analyses		
Raw Gains		
Language Arts	Higher *	
Math	Higher *	
ANCOVA - Adjusted Gains		
Language Arts	Higher *	
Math	Higher *	
Paired Class-by-Class Comparisons		
ANCOVA - Adjusted Gains		
Language Arts	Higher (ns)	
Math		Higher (ns)
Reading		Higher (ns)

In 9 of 11 comparisons, the experimental group had higher means. Seven of those 9 comparisons were statistically significant. Neither of the two comparisons where the control group was higher was statistically significant. The purpose here is to summarize and not to use a "box score" approach. We realize that the many different analyses are, at once, correlated with each other and also address somewhat substantively different questions (e.g., pooled variance vs. between-class variance).

When the results of these analyses are considered along with the other six recent experiments cited earlier, it appears that the efficacy of indirect effects of teacher training on student outcomes is supported. Chapters in the remainder of this report provide detailed explorations of the interconnections among teacher behaviors, the nature of learning tasks and student performance.

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Chapter 4

The Focused Exploration: Conceptual Approach and Methodology

Classroom management is a phenomenon that can be examined at varying levels of generality. The methods and variables described in the preceding chapters have been characterized as existing at a broad level of generality. Although considerable detail has been entertained within the variety of quantitative observational procedures implemented, the vantage point used in observation is one of distance. Moreover, a normative model of teaching lead to conceptualization of the management training program and to the identification of the variables to be observed. At root, a normative model is a set of generalizations derived from multiple observations, across multiple settings, and across an entire history of teaching effectiveness research. These generalizations exist as a set of aggregate impressions that necessarily camouflage idiosyncratic features of the teaching-learning process.

The microanalytic approach to be described in what follows was adopted as a means of increasing the power of the lens through which classroom management could be observed. The intent in conducting the microanalysis was to unveil the particular ways in which individual teachers in a particular classroom develop management structures, establish management procedures, and construct, with students, the processes that unfold in the course of lesson events and activities.

This chapter is concerned with the conceptual approach used in the focused explorations that follow in the next chapters. In addition, three aspects of the methodology will be described: (a) a step-by-step chronological outline of the analytic steps taken in producing "maps" of lesson structure, (b) a review of procedure as a cycle of inquiry, and (c) the sampling procedures used in selecting the teachers to be observed in the focused explorations. Using the cycle of inquiry, the maps of lesson structure were viewed as individual case models that could be explored for recurrent themes, for emergent research questions and hypotheses, and for testing these questions and hypotheses. Excerpts from the data collected in the present study are provided as illustrations of selected constructs and also to demonstrate particular aspects of the analytic process. Representative findings are reserved for presentation in the next two chapters.

The Conceptual Approach

The microanalytic approach is grounded in theoretical constructs emerging from fields of sociolinguistics, ethnography of communication, conversational analysis, discourse processes and educational research on teaching-learning processes (see Note 1). An overview of selected constructs is provided in Table 4.1. Together these constructs form the basis for the conceptualization of teaching as a linguistic process and a focus for research concerned with how teaching and learning occur through social interactions in educational settings (Cazden, in press; Green, 1983). In effect, this approach seeks to discover how communication between and among teacher and students leads to construction of social and academic meanings and activities. The principal focus is on the ways everyday interactions serve to suppport or constrain acquisition of academic and social knowledge, and knowledge of procedures for participating in on-going educational events. The sociolinguistic/ethnographic approach also provides a theoretically grounded descriptive language for use in continuing dialogue about teaching-learning practices.

Insert Table 4.1 about here

To further illustrate the nature of the constructs listed in Table 4.1 and to highlight the sets of constructs that hold particular relevance to the questions addressed in this study, a brief review of three selected sets is provided below. These include (a) the nature of classrooms as communicative environments, (b) contexts as constructed through interactions, and (c) inferencing as required for conversational participation.

Classrooms as Communicative Environments

One way to consider what is involved in defining the classroom as a communicative environment is to view the classroom as a setting in which specific kinds or sets of situations are represented by communicative events (cf., Goffman, 1980). In classrooms, particular types of communicative events are undertaken for instructional purposes (e.g. a spelling test, math drill, journal writing, homework review, etc.).

Table 4.1

Constructs Contributing to a View of Teaching as a Linguistic Process[1]

Classrooms are communicative environments.

- Differentiation of roles exists between teachers and students; relationships are asymmetrical.
- Differential perceptions of events exist between teachers and students.
- Classrooms are differentiated communication environments.
- Lessons are differentiated communication environments.
- Communicative participation affects student achievement.

Teachers orchestrate different levels of participation.

- Class.
- Group.
- Individual.
- Teachers evaluate student ability from observing performance during interactions.
- Demands for participation co-occur with academic demands.
- Teachers signal their theories of pedagogy from their behaviors.
- Teacher's goals can be inferred from behaviors.

Students are active participants in learning environments.

- Students acquire understandings of demands for participation by participating and by observing the participation of others.
- Students signal agreement to participate.
- Peer groups may mediate the individual's participation.
- Student verbal and nonverbal participation influences the teacher's and other students' evaluations of student performance and ability.
- Mis-match between student and teacher interaction styles can lead to frame clashes and inaccurate assessment of student performance, learning, and growth.

(table continues)

Table 4.1 (continued)

- Learning materials introduce an overt structure of their own.
- Face-to-face interaction is a rule-governed phenomenon.
  - Rules or norms for behavior are constructed as part of academic and social interactions in classrooms.
  - Rules of conversational participation are learned through interaction.
  - Rules of conversational participation are culturally determined.
- Contexts are constructed through interaction.
  - Activities have participation structures.
  - Contextualization cues signal meanings.
  - Rules for participation are implicit.
  - Behavior expectations are constructed as part of interaction.
- Meaning is context specific.
  - All instances of behavior are not equal.
  - Meaning is signalled verbally and nonverbally.
  - Contexts constrain meaning.
  - Meaning is determined by and extracted from observed sequences of behavior.
  - Communicative competence is reflected in appropriate behavior.
- Inferencing is required for conversational participation.
  - Frames of reference guide participation of individuals.
  - Frame clashes result from differences in perception.
  - Communication is rule-governed activity.
  - Frames of reference are developed over time.
  - Form and function in speech used in conversations do not always match.

---

[1] See Green (1977) for fuller elaboration.

These events help to define the classroom as a setting which differs in specific ways from other types of communicative settings such as at home, at church, or in the supermarket. Classroom communication viewed in this way is therefore a sub-set of general communication. What differs are the types of communication events, the goals pursued in communicating, the demands for communicative functioning (cf., Hymes, 1974), and the conversational inferencing (cf., Gumperz, 1982) required for appropriate participation and access to learning in the classroom events.

The classroom is a differentiated communicative environment. The nature of the classroom as a communicative environment becomes clearer when the social and academic demands for participation and the participation structures (cf., Erickson & Shultz, 1981; Philips, 1972, 1982) of events in a classroom are considered over time both within and across days. From an exploration of the various activities that make up everyday life in the classroom, an understanding of the classroom as a differentiated communicative environment can be obtained (e.g., Cazden, in press; Cochran-Smith, 1984; Erickson & Shultz, 1981; Florio, 1978; Green & Harker, 1982; Green & Weade, 1985; Philips, 1982). For example, as participants move from activity to activity, the rights and obligations for participation shift (c.f. Erickson & Shultz, 1981; Philips, 1972; 1982), even when the physical setting and the physical organization remain the same.

In other words, activity can shift even when participants do not physically shift from one space to another. An illustration of this is provided in Table 4.2. The data are taken from the sub-sample considered in the present study; the class is a ninth grade English class. This lesson, which occurred during a fifty minute period in November, involved the students in reviewing a test with the teacher. The physical setting (all students sat at their desks) and the general expectation for turn distribution (speak when called on) remained stable, but the nature of the content and the way in which a response was to be given varied by lesson phase.

Insert Table 4.2 about here

In phase 1, students were to give the past and past participle for the verb forms listed in section 1 of the test. In phase 2, they were to identify the tense of a given verb. In phase 3, they were to determine the correct form of a missing verb and were to read the sentence, inserting the correct form of the verb as they read. In phase 4, the students were to identify the verb that was used incorrectly, correct the verb, and then read the sentence aloud when called on. Finally, in phase 5, the students were to listen as the teacher gave the answers. In each phase of the lesson, different expectations for appropriate participation and presentation of information existed; each phase, therefore, formed a different context for what was occurring even though the general organizational structure of the classroom (e.g., teacher and whole class structure) did not

Table 4.2

Lesson Tasks by Lesson Phase, Teacher A

Lesson Phase	Task
1	Give the past and past participle of the verb when called on.
2	Given a verb, identify the tense when called on.
3	Given a verb in the present tense and a sentence with the word missing, read the sentence with the correct verb (verb in context) when called on.
4	Given a sentence with the verb used incorrectly or an incorrect verb, correct the sentence and read it aloud when called on.
5	Listen as the teacher gives the answer to the task -- given a verb, identify whether the verb is active or passive. Check paper against the answer given by the teacher. Ask questions when teacher is finished giving all the answers, if there are any questions.

change. Changes in context were signalled by changes in activity, content, and manner of communicaton and not by changes in the overall physical environment. These shifts are not random; rather, they reflect shifts in factors such as instructional activity, curriculum demands, teacher goals, degree of conversational cooperation provided by the participants, and institutional constraints such as time and materials.

Lessons are constructed during interaction. Viewed from a social interaction perspective, lessons are constructed and negotiated during interactions between teacher and students. Lessons are not scripts to be followed. Similarly, plans are general frameworks; they show what was intended, but not what gets delivered (Green & Harker, 1983). Changes in plans occur throughout lessons as teachers orchestrate activity to reach instructional goals and to meet student needs. What is required for participation is signalled throughout the lesson and is reflected in the actions of participants as they interact with and build on their own messages and behaviors and those of other participants.

For example, in the lesson described in Table 4.2, shifts in context follow the structure of the test being reviewed. While the parts of the lesson may be predictable in that they follow the parts of the test, the way in which the teacher will orchestrate subtle aspects of the review process is not predictable. This view of lessons as dynamic, evolving phenomena means that participants must attend to what is occurring and how it is occurring if they are to participate appropriately. Decision making, therefore, occurs both during planning and during lesson delivery.

Contexts as Constructed through Interactions

The differentiated and dynamic nature of classroom communication both within and across events and tasks requires participants to continually monitor what is occurring, how it is unfolding, and who is participating or how they are required to participate. In addition, if more than one activity is occurring at a time, the teacher must monitor not only the activity under construction but also all the other activities in which students are involved. Students who are not involved with the teacher must monitor what is required to complete their task, and additionally, if they are to ask for assistance at any point, they must also monitor the group with whom the teacher is working (Merritt, 1982). Each of these activities is a separate context with specific rights and obligations for participation, spatial configurations, roles and relationships, and topics. Classrooms, therefore, have differentiated contexts, some of which may co-occur.

One way to conceptualize this process is as a set of interlocking and interdependent processes and levels of communication. Viewed in this way, lessons have a social structure (who can speak when, where, in what ways, about what, for what purpose), an academic content structure (academic content themes and task demands), and an activity (context) structure (what type of activity is occurring at any given point in the lesson -- we're discussing how to do spelling; we are not doing spelling) (Erickson, 1982). That is, as the teacher interacts with students to reach instructional goals, or as students work together without the teacher, the social and activity structures of the evolving event are being signalled simultaneously with the presentation of academic content. Therefore, in order to participate appropriately and to gain access to learning, students must not only provide the appropriate information but must do so in ways that match the social expectations and activity structure (e.g., raise hand rather than call out; give the answer in a complete sentence; give a group response without being called on individually) (Bloome, 1984; Cook-Gumperz, Gumperz & Simons, 1981; Garnica, 1981; Green & Harker, 1982; Scollon & Scollon, 1984). Context defined in this way is a constructed process. It is a product of social interactions in which social, academic and activity structures co-occur, each influencing, supporting and/or constraining the others. Contexts are not given in the setting, e.g. the homework review or the spelling test, but are constructed by the participants as they work together to achieve the goals of the lesson (Erickson & Shultz, 1981; McDermott, 1976).

In addition, recent work has shown that contexts can overlap. For example, whether a student will participate or not and the manner of the student's response may be partially explained by peer standing and relationships as well as teacher or task demands (Cook-Gumperz, Gumperz & Simons, 1981). In other words, students are part of two different systems at the same time: the instructional system of teacher-student interaction and the peer interaction system. These systems can be thought of as different contexts, contexts which overlap and influence what is occurring and how a performance is delivered. Context defined in this way is both a locally constructed activity and a phenomenon in which the local activity is embedded. Context, therefore, can be defined in a variety of ways at a variety of levels (see Note 2).

Inferencing as Required for Participation

The multi-faceted, evolving nature of lessons can be further understood when factors involved in the process of constructing meanings and interpretations are considered. To meet the instructional goals of the lesson, the teacher must simultaneously coordinate presentation of information with student participation. The teacher must decide who can talk when, where, about what, and for what purpose; weigh the effect of student participation on the forward flow of the lesson; provide feedback to students; meet individual needs; maintain group and lesson direction, and so forth. The tasks facing teachers are, thus, both multiple and complex. Students, in-turn, are co-participants in the construction of classroom lessons. They must monitor the teacher's expectations as signalled during delivery; determine when, how, and whether to participate; monitor the academic, social and activity demands; construct, interpret, and re-construct text (e.g. read, write); and observe teacher responses to others as well as to self in order to determine expectations for what to know and what to do (Cochran-Smith, 1984; Erickson, 1982; Frederiksen, 1981; Morine-Dershimer, in press; Morine-Dershimer & Tenenberg, 1981; Wallat & Green, 1979, 1982).

At any given point in the lesson under construction participants must process both the content of the message and its delivery in order to interpet what is meant. That is, they must interpret contextualization cues (cf., Gumperz, 1982) including paralinguistic cues (e.g. pitch, stress, intonation, pause, rhythm), proxemic cues (e.g. distance between participants; shifts in distance), kinesic cues (e.g. gestures, body movements, facial expressions, eye gaze), and verbal cues (e.g. syntax, phonology, semantics). Given that the meaning of any lexical item or message depends on how it's delivered and on what surrounds it at the point of use in the conversation, contextualization cues become critical to consider when exploring the construction of meaning. They become possible explanations for mis-communication (Gumperz, 1982; Gumperz & Herasimchuk, 1973). For example, the meaning of the term "OK" can provide feedback about the accuracy of a message or about the appropriateness of an action. It can also mean "get ready; listen" as in "OK, now" said quickly as a unit. "OK" can also be said slowly while the speaker who has the floor looks about. This latter use can be interpreted as a place holder meaning "don't go away". In each instance, the lexical item is the same in form but not in meaning. The only way to determine meaning is to consider the meaning in context (e.g., Cazden, in press; Corsaro, 1981; Gumperz,1982; Green & Wallat, 1981; Mishler, 1984; Sinclair & Coulthard, 1975). Meaning, therefore, is situation specific.

Frames of reference. Contextualization cues are only one set of factors that contribute to the interpretation of messages and activity. A participant's frame of reference (Frederiksen, 1981; Green, 1983; Green & Harker, 1982; Heap, 1980; Tannen, 1979) and interpretation of evolving frames of reference within and across events (Green, Harker & Golden, in press) also influence interpretation of meaning. Viewed from this perspective, frames of reference are multi-faceted. That is, different types of frames of reference are used by participants to "read" the academic, social and activity demands of lessons and demands for participatiion in classroom events. Some frames are brought to the activity by the participants: personal fames and materials frames. Some are constructed during the lesson: academic frame, social frame, local frame; and some are developed over time: historical frames or frames from previous lessons (Green, Harker & Golden, in press).

Personal frames can be thought about as the lens a person brings to a lesson. This lens is composed of the past experiences, beliefs, and expectations a person brings about the activity as well as the person's abilities (e.g. physical, perceptual, linguistic, cognitive, social). The lens influences how the person perceives what is occurring and guides the actions the person takes. Because of the role teachers play in classrooms, a curriculum dimension (e.g. goals, content expectations, repertoire of instructional organization strategies) is added to their personal frame.

Additionally, materials (e.g. books, physical objects, programs) bring frames of reference to instructional events. The frame of reference reflected in the organization and format of these materials contributes to the construction of meaning. That is, materials are written by someone, in specific ways, and for specific purposes. Thus, material frames can influence how things come to mean in teacher-materials, student-materials, and teacher-student-materials interactions. Each of these frames interact in a lesson, each contributes to the meanings constructed during the interactions within lessons, and each participant's personal frame of reference guides both interpretation and participation.

The frames brought to the task are only one type of frame used to interpret meaning and guide participation and decision making. Frames are also generated from the interactions among teacher, students, and curriculum materials. That is, from the way in which turns are distributed, answers are accepted or rejected, initiations are accepted, ignored or redirected, etc., students extract a social frame or pattern of expectation for how to be a student in the given event. From the way in which content is structured, questions are asked, content presented, etc., students extract the academic frame or expectations for what one is to know. Both of these frames evolve as part of the unfolding lesson. Students, therefore, must monitor what is occurring and how it is occurring in order to know how to participate both socially and academically within and across different phases or contexts of a lesson.

From participation in recurrent events and differing contexts within the classroom, students extract a set of expectations for what will occur, when, and in what ways. These expectations can be thought of as an historical frame, e.g. a frame brought forth from a previous lesson phase or a previous lesson. As discussed above, the way any message is interpreted depends on the local frame, e.g. the expectations and contextual information brought forth at the specific point in the lesson under construction (e.g., the teacher asks students to identify verbs in given sentences, using a framework for how to do this provided in a preceding lesson phase). Local frames at any given point are therefore embedded in the history of what has occurred in prior parts of the lesson. Over time, these frames become part of the personal frame of a participant. That is, they help the participant predict what will occur, evaluate what is occurring, and participate in appropriate ways in a given event. Teachers must also monitor what is occurring and how it occurs in order to maintain lesson, to make decisions about the future direction of the lesson and to determine the type of student participation required. Interpetation of meaning requires that participants not only attend to what is occurring in the immediate context but also to consider this in light of the history of similar contexts within the classroom experience.

Frame clashes. Different phases of lessons can have different social and academic frames, or the frames in one phase can support those in another phase. When the frames support each other, the lesson proceeds toward the instructional goal. However, if the frames are not consistent, or if the teacher fails to overtly signal a change in frame, participation and learning can be affected (Green, Harker & Golden, in press). For example, a student can use a frame from the introduction of the lesson to guide behavior during a subsequent lesson phase. This presents a problem for students that can lead to inappropriate participation.

Frames can also clash (Erickson & Mohatt, 1982; Florio & Shultz, 1979; Green, 1983; Mehan, 1979; Mehan, Cazden, Coles, Fisher & Maroules, 1976; Scollon & Scollon, 1984; Philips, 1972; Wallat & Green, 1982). A teacher's expectations for performance (e.g. sharing; discussing) may not match the way students perform. For example, a student may share a story in a culturally patterned way; this way of sharing, however, may not meet the teacher's expectation and thus, may lead to negative assessment of ability (Michaels & Cook-Gumperz, 1979; Michaels, 1984).

Summary

The constructs discussed in this section provide a framework and a way of defining teaching and learning from a social interaction perspective. The constructs that have been presented are illustrative; they are far from all-inclusive. Taken together, these constructs provide an image of classrooms as dynamic contexts in which both teachers and students must be continually active in monitoring and interpreting a complex set of cues as they work together to construct instructional activities and to pursue curricular goals.

The specific methods used in applying these constructs to the analysis of the data collected in this study are considered next. An important constraint on the analysis needs to be reiterated at this point. That is, the focused, microanalytic observation in this study is neither a sociolinguistic nor an ethnographic analysis. Rather, the analysis exists as an example of the application of a sociolinguistic *perspective* to the forms of data that were available. At least two major constraints limited the extent to which a sociolinguistic or an ethnographic analysis could be conducted. First, the records of the classroom events that were available consisted of audiotape recordings. As such, important nonverbal features of the classroom communications could not be observed by the data analysts. Additionally, the classroom teachers were not involved as part of the collaborative team concerned with this phase of the data collection or analysis. These teachers played no role in either influencing the articulation of research questions to be addressed, in describing instructional objectives or lesson intents either before or after the audiotapings, or in contributing reflective comments or interpretations following any observation. Interviews with teachers were conducted, but these interviews occurred almost two years after the data were collected. A description of the methodology as a cycle of inquiry is described next. Procedures used in selection of the sub-sample for the microanalysis are outlined at the conclusion of this chapter.

Procedure: A Cycle of Inquiry

The approach taken in the focused exploration conducted in this study is a type case analysis (cf,. Erickson & Shultz, 1981; Green & Harker, 1982). Using this approach, a single case sample is subjected to highly detailed, microanalytic examination. In this study, four case analyses yielded four type case models of the management procedures in place in each of the four classrooms -- one for each of the four teachers included in a theoretical sub-sample. These type case models exist as inventories of recurrent patterns and themes in the unfolding lessons. Once constructed, they serve as a base from which particular instructional variables such as interactions, instructional units, topical content, and the establishment of norms and expectations for social and academic participation can be identified. They also reveal patterns of interaction between teacher and student, students and other students, teacher and materials, and among students, teacher and materials. Construction of the type case model, which is referred to in this study as a "map" of lesson structure, represents an intial phase of the cycle of inquiry. The map construction alone is a multi-stage, theoretically-driven process. An outline of the steps in the mapping process is provided below, followed by a description of subsequent phases in the cycle of inquiry.

Mapping Instructional Conversations

Maps of lesson structure were constructed following the theoretical frame described earlier and analytic procedures developed by Green (1977) and Green and Wallat (1981). Adaptations in technical and procedural aspects of the mapping process were made where necessary as determined by the character of the observational records available (audio recordings as opposed to videotapes used in earlier studies), and where expedient to reflect a primary focus on the particular questions under study. The analytic steps used in constructing these maps are outlined in Table 4.3. A description of categories and representational conventions used in the mapping process is contained in Table 4.4; a short sample segment of one completed map is provided in Figure 4.1.

Insert Table 4.3, Table 4.4, and Figure 4.1 about here

Table 4.3

Analytic Steps Used in Mapping Instructional Conversations from Audio Recording.

---

1. Typescript is prepared from audio transcription.

2. Message Units. Typescript is segmented into discrete messages on the basis of co-verbal, prosodic cues.

3. Potential Divergences. Student talk, actions, or events, or external events that interruppt or potentially interrupt the teacher's apparent instructional theme are designated.

4. Interaction Units. Sequences of tied or cohesive message units are designated post hoc on the basis of prosodic cues and the social and conversational demands made and/or responded to by teacher and students.

5. Instructional Sequence Units. Segments of tied interaction units are designated post hoc on the basis of thematic cohesion.

6. Contextualization Cues. Explanations or potential interpretations are noted where evident or where needed for clarity.

7. Themes. Topical theme is designated post hoc as a means of characterizing hierarchical thematic units.

8. Lesson Phase. The day's lesson is segmented, post hoc, into discrete phases based on changes in the academic and/or social participation demands placed on students.

9. Bases of Inference. Cues used in making decisions about designation of units and themes are recorded where necessary throughout the mapping process.

10. Questions and Issues for Triangulation. The need for additional information is noted where necessary when clarity might be gained through teacher interview or examination of instructional materials.

Table 4.4

Description of Categories and Representational Conventions Used in Mapping Instructional Conversations from Audio Recordings.

Transcript Line

Designation of discrete message units by number in sequential order from beginning to end.

Message Unit

Discrete, elemental segments of talk designated through observation of co-verbal/prosodic cues.

Representational conventions:

(a) Individual message units are arrayed in separate lines associated with a single transcript line number.
(b) TEACHER TALK IS REPRESENTED IN UPPER CASE LETTERS.
(c) student talk is represented in lower case letters, indented from the left margin, and is preceded by "s"; "sx", or "sS" where possible, where "x" indicates the first letter of the student's name, and "sS" indicates a multiple or group response.
(d) inaudible talk is indicated by /?/.
(e) punctuation is not used.

Interaction Unit (IU)

A discrete sequence of tied or cohesive message units determined post hoc on the basis of prosodic cues and conversational and social demands made and responded to by participants.

Representational conventions:

Boundaries between interaction units are marked by a single horizontal line spanning the column. Single vertical arrows are used to connect sequentially ordered ("tied") interaction units. IUs are lettered consecutively from a - z within each instructional sequence unit.

(Table continues)

Table 4.4 (continued)

Instructional Sequence Unit (ISU)

Segments of tied interactoin units designated post hoc on the basis of thematic cohesion.

Representational conventions:

Boundaries between instructional sequence units are marked by a double horizontal line spanning the column. Double-barred vertical arrows are used to connect sequentially ordered ("tied") instructional sequence units. ISUs are number consecutively from 1-n within each lesson phase.

Potential Divergence (PD)

Student talk, events, or actions, or external events that interrupt or potentially interrupt the rhythm and flow of the teacher's apparent instructional goal or a particular instructional theme.

Representational conventions:

Interaction units within divergences are marked by a single horizontal line spanning the column. A double horizontal line (solid and broken) is used to span both the instructional sequence column and the potential divergence column at boundaries of potential divergence. PDs are numbered consecutively according to ISU number and decimal place (e.g. 3.1, 3.2, 3.3, etc.)

Theme

A main topic or topical thread characterizing instructional sequence units and lesson phases. Sub-themes and broader themes are designated in hierarchical form.

Representational conventions:

Topical themes are indicated within brackets that vertically span the length of the instructional sequence unit, or portion thereof.

(Table continues)

Table 4.4 (continued)

Lesson Phase	
	A series of tied instructional sequence units designated post hoc on the basis of participation demands. Representational conventions: Boudaries between lesson phases are marked by a horizontal double line spanning the width of the map. Phases are numbered consecutively, using Roman numerals.

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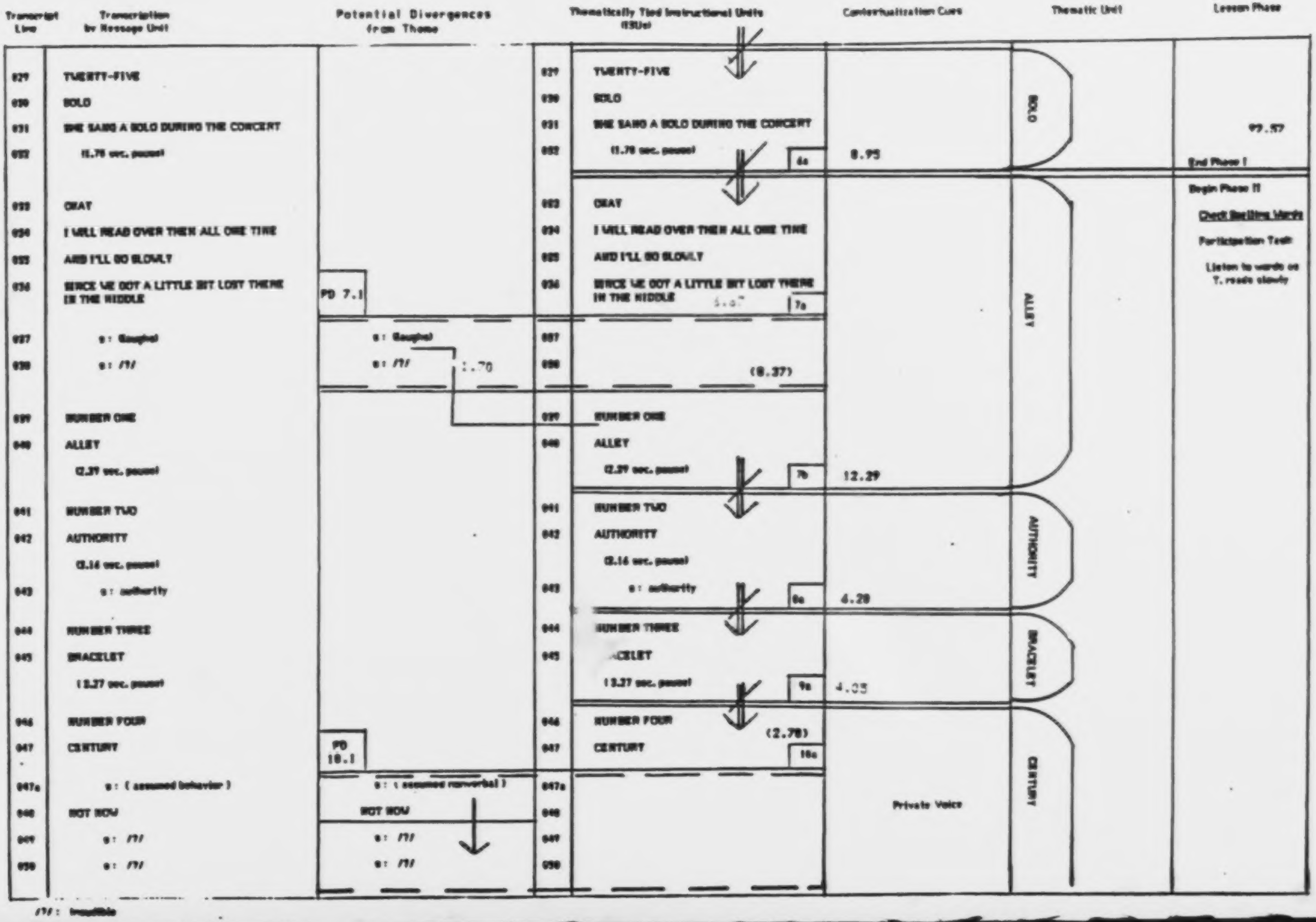
Figure 4.1 Sample segment: Map of instructional conversation.


Transcript Line
Transcription by Message Unit
Potential Divergences from Theme
Thematically Tied Instructional Units (TSUs)
Contextualization Cues
Thematic Unit
Lesson Phase
029 TWENTY-FIVE
030 SOLO
031 SHE SANG A SOLO DURING THE CONCERT
032 (1.70 sec. pause)
033 OKAY
034 I WILL READ OVER THEM ALL ONE TIME
035 AND I'LL GO SLOWLY
036 SINCE WE GOT A LITTLE BIT LOST THERE IN THE MIDDLE
037 s: (laughs)
038 s: /?/
039 NUMBER ONE
040 ALLEY
(2.29 sec. pause)
041 NUMBER TWO
042 AUTHORITY
(3.16 sec. pause)
043 s: authority
044 NUMBER THREE
045 BRACELET
(3.27 sec. pause)
046 NUMBER FOUR
047 CENTURY
047a s: (assumed behavior)
048 NOT NOW
049 s: /?/
050 s: /?/
PD 7.1
PD 10.1
s: (laughs)
s: /?/
1.70
s: (assumed nonverbal)
NOT NOW
6a
7a
7b
8a
9a
10a
(8.37)
(2.70)
8.95
12.29
4.20
4.05
Private Voice
SOLO
ALLEY
AUTHORITY
BRACELET
CENTURY
97.57
End Phase I
Begin Phase II
Check Spelling Words
Participation Task
Listen to words as T. reads slowly

/?/: inaudible

At the outset, the mapping process requires use of a recording of the classroom conversation. The recording itself does not exist as data; it is nothing more than undifferentiated raw footage. The recorder merely provides a technological means of observing and preserving the unfolding events in the classroom. Through use of the recorder, all that transpires in the recorded lessons is "frozen" for retrospective exploration and analysis. In this study, since audio recorders were used instead of video recorders, only the verbal features of the classroom conversations could be considered.

The actual mapping begins with construction of a verbatim typescript of all teacher and student talk. Examination of the left hand column in Figure 4.1 reveals that even at this early stage, transcription procedures reflect a view of the classroom as a communicative environment in which the relationship between teacher and students is asymetrical. Events in the classroom are orchestrated by the teacher; teacher talk is represented in upper case letters at the margin while student talk is in lower case letters and is indented from the margin. Other types of lesson or activity structures may require different forms of transcription (Cochran-Smith, 1984; Mishler, 1984).

Matters of correspondence between the audiotape and the typscript are important. For instance, the typescript parallels the audio in that the time-ordered sequence of talk, interactions, and events are maintained. Moreover, the typescript provides a form of visual complement to the audio record. As the researcher 'observes', i.e. listens to the tape recording, the typescript can be simultaneously observed visually. In addition, as a physical extension of the raw footage, the typescript provides a form upon which notations can be made, and later retreived, in the process of data analysis. At no point, however, is the typescript treated as a substitute for the raw footage. As a separate entity, the typescript is incomplete in that paralinguistic cues, e.g. pitch, stress, intonation, rhythm, pause structure, etc., cannot be adequately depicted. These cues are important features of the dialogue in that they contribute to construction of meaning in the messages delivered and received by the conversants; they can be adequately preserved only on the audio-tape (see Note 3). This matter is fundamental in terms of its implications for understanding the mapping process and conducting the data analysis: the researcher never 'abandons' the original audio transcription -- the map serves only as an extension of the original.

Once the typescript is completed, the analytic process proceeds to the segmentation of teacher talk and student talk into message units. The message unit is the most elemental within a four-level hierarchy: message units, interaction units, instructional sequence units, and lesson phases (see Table 4.3, steps 2, 4, 5, and 6). At each level, designation of discrete elements, i.e. units, is made following the theoretical frame and according to co-verbal prosodic cues preserved in the audio recording. Consideration is given to the manner in which the language functions within the social context rather than to grammatical or syntactical form. Interaction units, i.e. sequences of tied or cohesive message units, are designated post hoc on the basis of social and conversational demands made and/or responded to by students. Instructional sequence units are segments of tied interaction units designated on the basis of thematic cohesion. Designation of lesson phases, the largest unit in the system, is based on changes in the academic and/or social participation demands placed on students. During the mapping process, the length of time (seconds) of each interaction unit, instructional sequence unit and lesson phase is recorded on the map for use in subsequent phases of the analysis.

Following designation of the unit structure, the mapping process continues with segmentation of the transcription into selected categories. In these maps, a category of potentially divergent messages/interactions was selected in light of the concern with classroom management phenomena (see Table 4.3, step 3). Two column headings were designated on the map: one for representing unfolding conversation that was goal-directed, as inferred through consideration of the teacher's stated instructional goal, and the other for representing any message that was potentially divergent from the teacher's stated purpose. As long as the unfolding dialogue continued in response to a potential divergence, e.g. became an actual divergence, it was recorded in the potentially divergent column. At the point at which interaction once again became goal-directed, messages were moved back into the goal-directed column. In this way, the map provided a record that facilitated retrospective exploration. Potential divergences could be described in terms of both frequency and duration and the factors contributing to the return to goal-directed instruction could be identified.

An instructional theme category was selected to characterize the nature of interaction units, instructional sequence units and lesson phases (see Table 4.3, step 7). Themes therefore also took on a hierarchical arrangement. They provided a specification of the topical content under consideration. For purposes of retrospective analysis, the identification of lesson themes provided an index of content coverage, sequencing, and topical consistency and variability.

Finally, category headings were used to provide a means of recording bases of inference, contextualization cues, and emergent issues and questions for triangulation. Where decisions about designation of units or themes were less than immediately obvious, the rationale for a given decision was recorded as a base of inference. Where subtleties in the dialogue or in the prosodic cues could influence interpretation, explanatory notations were recorded as contextualizaton cues. Unanswered or unexplored questions, emergent hypotheses and emergent issues were also noted in a separate column of the map for subsequent retrieval.

The Type Case Analysis

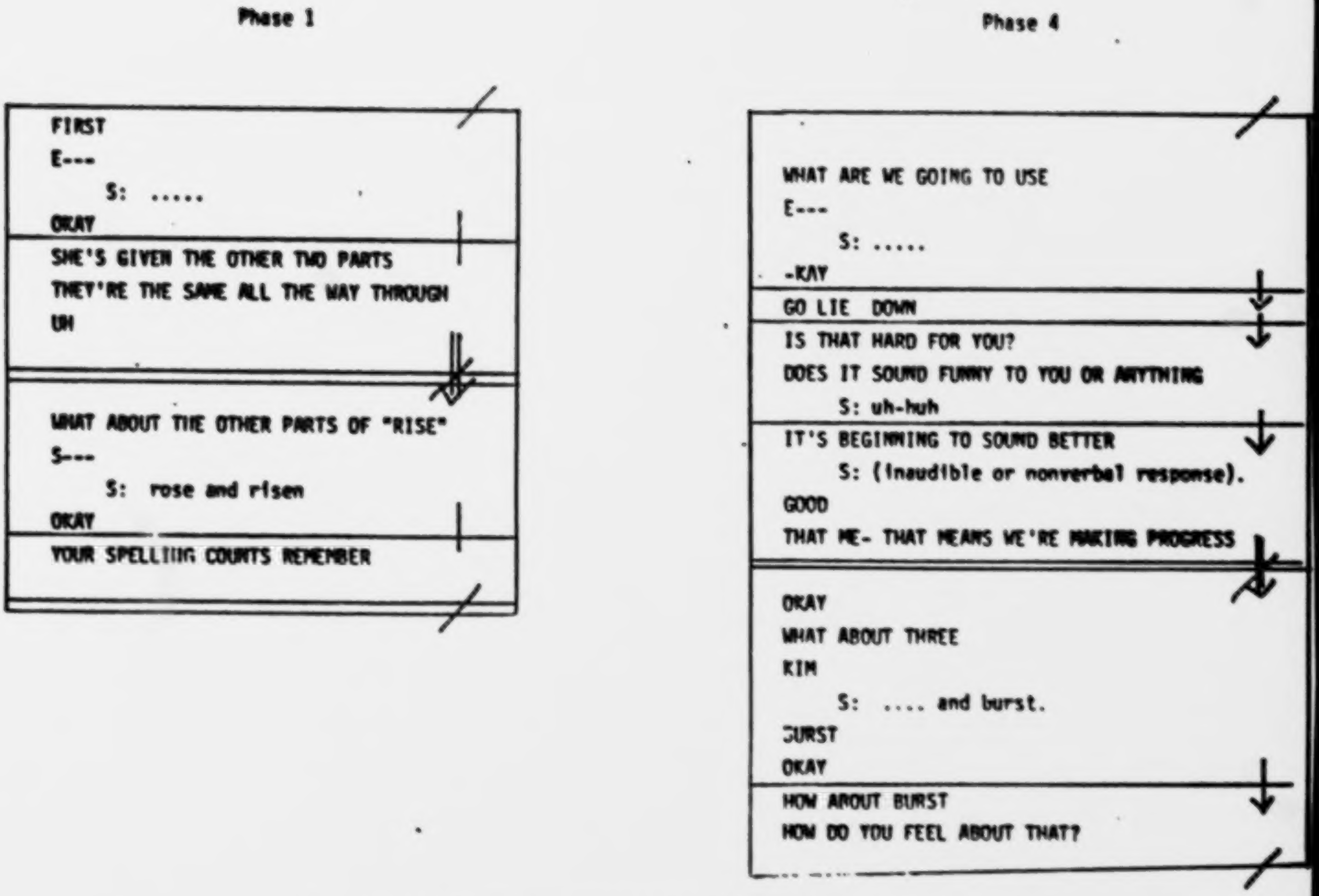
As indicated earlier, the maps of lesson structure were constructed for use as type case models. Considering the context of a lesson as bounded by its beginning and its end, the type case analysis permitted identification of what was normal or ordinary in the unfolding lesson. For example, recurrent patterns of interaction between teacher and students, between a student and other students, among teacher, student and materials, and so forth, could be described as ordinary on the basis of their recurrency. The model could then be further explored to assess frequency of occurrence of the pattern both within and across different phases of the lesson. In contrast, deviations from ordinary patterns could be identified as anomalies and then explored in search of explanations for the differences. That is, comparisons between the ordinary patterns and the deviation patterns could be drawn to identify factors that had contributed to the differences. In turn, these identified factors could then be examined to determine consistency or variability over time.

To illustrate the identification of the recurrent patterns, sample interaction segments are presented in Figures 4.2 and 4.3. The excerpts are taken from the type case model for the teacher who out-ranked all other teachers in the entire sample on measures of effective management, and out-ranked others in the present sub-sample on measures of academic achievement. The class is a ninth grade English class. The lesson consisted of a whole-class review of a test taken on a preceding day. Teacher and students moved item-by-item through the test. Ordinary patterns in two different phases of the lesson under construction are depicted in Figure 4.2. In phase 1, the typical interaction pattern consisted of 1) designation of turn by the teacher, 2) student response, 3) an abbreviated signal from the teacher in response, and 4), a further comment about the content of the response. In phase 4, the pattern was similar, although slightly extended in comparison. Following the student's response, the teacher typically inquired about the student's attitude toward the content of the response ("Does it sound funny ..."; "How do you feel about [burst]").

Insert Figures 4.2 and 4.3 about here

Representative interactions from each phase that were eventually identified as non-ordinary are depicted in Figure 4.3. After exploration, these anomalies were described as elaborative interactions, suggesting the nature of the factors contributing to their deviation from the ordinary. In all cases, elaborative interactions were extended in length and these extensions were related to student responses that were unacceptable in terms of content, teacher messages directed toward understanding the source of the error, and/or signals provided by the teacher about what to remember or how to understand the particular content issue. Thus, deviations from ordinary patterns in the within-case analysis for this teacher could be explained in terms of the influence of the subject-matter content and variability in the apparent difficulty of this content across instructional units.

Several techniques are used as aids in the initial identification of recurrent patterns. One of these is the exploration of time distribution within the lesson. As indicated earlier, each interaction unit, instructional sequence unit and lesson phase is timed, in seconds, during map construction. While time is not of interest in and of


Phase 1

FIRST
E---
S: .....
OKAY
SHE'S GIVEN THE OTHER TWO PARTS
THEY'RE THE SAME ALL THE WAY THROUGH
UH
WHAT ABOUT THE OTHER PARTS OF "RISE"
S---
S: rose and risen
OKAY
YOUR SPELLING COUNTS REMEMBER

Phase 4

WHAT ARE WE GOING TO USE
E---
S: .....
-KAY
GO LIE DOWN
IS THAT HARD FOR YOU?
DOES IT SOUND FUNNY TO YOU OR ANYTHING
S: uh-huh
IT'S BEGINNING TO SOUND BETTER
S: (inaudible or nonverbal response).
GOOD
THAT ME- THAT MEANS WE'RE MAKING PROGRESS
OKAY
WHAT ABOUT THREE
KIM
S: .... and burst.
BURST
OKAY
HOW ABOUT BURST
HOW DO YOU FEEL ABOUT THAT?

Figure 4.2. Comparison samples of ordinary interactions, phases 1 and 4.

Phase 1

OKAY
NOW WHAT ABOUT "RAISE"

M---
'D YOU GET "RAISE"
S: raise and rose

OKAY
M---
YOU'RE THINKIN' ABOUT "RISE"
I BET
RISE, ROSE, RISEN.

I MAY HAVE 'MADE A
DID I MAKE A MISTAKE ON YOUR PAPER THERE
S: inaudible or nonverbal response
OKAY

HE TRIED IT
HE TRIED SOMETHING ELSE WHEN HE TOLD US
AND THAT DIDN'T WORK EITHER DID IT
WE'RE GOING TO HAVE TO HELP M--- WITH THIS VERB

B---
S: ri raise, raised
OKAY

WHAT ARE YOU SAYING ON THE END OF THAT
S: e

Phase 4

OKAY
NUMBER FOURTEEN
DID YOU GET THAT ONE
OH THAT WAS A HARD ONE
I GUESS YOU TAKE VOLUNTEERS
M---
S: he rose up and opened his eyes
OKAY

YOU KNOW
REALLY
LET'S THINK ABOUT THAT A MINUTE
NOW I GAVE YOU CREDIT IF YOU CHANGED IT TO ROSE.
BECAUSE WE DIDN'T TALK ABOUT THIS AND
IT'S REALLY PARTLY MY FAULT
WHICH
WHAT DOES "ROSE" MEAN
Ss: go up
ALL RIGHT

NOW LET'S PUT IT IN THE PAST TENSE
NOT GO UP
BUT WHAT
Ss: went up

Figure 4.3. Comparison samples of elaborative interactions: Phases 1 and 4.

itself, timing does provide a standard and systematic means of entering the data and exploring questions about what is occurring. That is, the distribution of time within an instructional sequence or a lesson phase can be examined to assist in the identification of what is ordinary. Time differences become meaningful only as indicators and only when reasons or explanations for the time differences can be identified in the retrospective analyses. By plotting the distribution of units by time, as illustrated in Figure 4.4, patterns can be identified.

Insert Figure 4.4 about here

For each of the four lesson phases depicted, the number of the instructional sequence unit is represented on the vertical axis and the length of time in seconds, on the horizontal axis. The mean length of time of instructional sequence units within each phase is represented by the horizontal broken line that intersects each graph. Long, average length, and short units are then foregrounded and the analyst can return to the map in search of pattern characterization and explanations for the differences. Moreover, the graphs illustrate the fact that ordinary and the non-ordinary are relative terms. Definition in these cases is bounded by the beginning and end of each lesson phase. Examination of the graph for Teacher C, for instance, reveals that what is ordinary is a series of swings between short sequences and long sequences. In this case, through examination of pattern consistency at both high and low

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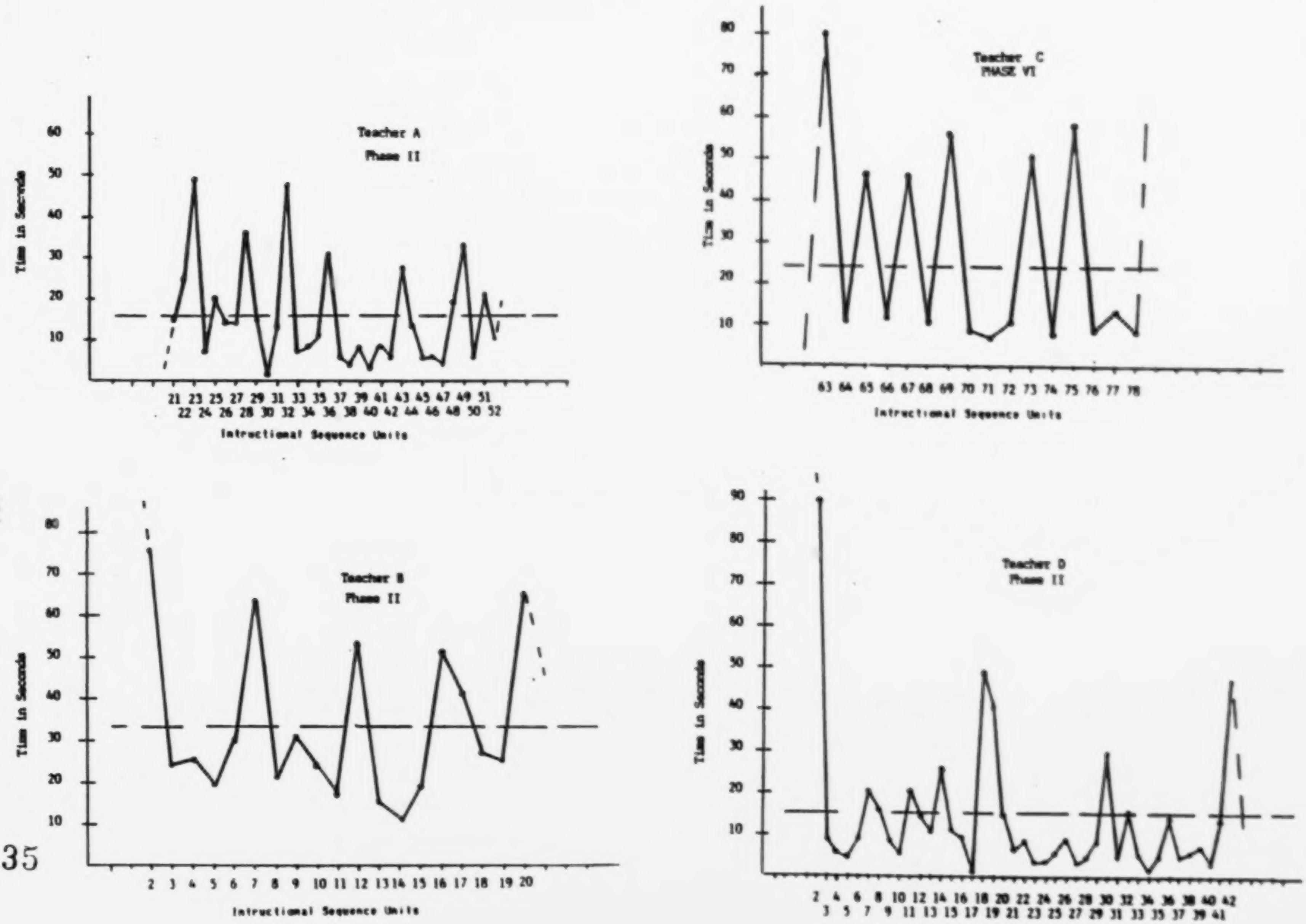

Figure 4.4 Distribution of instructional seuqence units by time for four teachers in selected lesson phases.

points, it was determined that two forms of ordinary had in fact been established.

The fact that time differs within lesson also demonstrates the constructed nature of lessons. Although a lesson may be direct in terms of instructional strategies, it is not scripted. Rather the teacher and students are constantly monitoring what is occurring in order to know what to do. In the case of the teacher for whom extended interactions were described as elaborative (see Figure 4.3), the teacher demonstrated sensitivity to the difficulty of the content and to student needs in relation to that content. Elaborations often occurred at points where the teacher found students had had difficulty on the test or at points where students who were called on to respond made errors. This particular lesson did have a "slot" orientation in that the teacher proceeded item-by-item through the different sections of the test. However, within item, the teacher periodically "slotted out" to either elaborate or constrict the interactions, thus influencing the length in time of the given unit. The use of time as an indicator facilitated the identification and interpretation of this pattern.

The patterns illustrated above are provided only as a means of demonstrating the within-case cycle of inquiry. What is suggested is that comparison and contrast strategies permit identification of antecedent factors that contribute to the unfolding variations and to the establishment of the particular context. This identification of factors frequently serves as the grounds for identification of additional patterns, patterns within patterns, or patterns across patterns. Questions emerge to guide further exploration and emergent hypotheses can be constructed and tested. Thus, the analytic process is cyclic, moving back and forth between the testing of hypotheses and the generation of new and emergent questions.

Beyond the Within-Case Analysis

The cycle of inquiry described thus far has involved the generation of maps of lesson structure as type case models and procedures used in the microanalytic examination of these single cases. The descriptive models for each of the four teachers are presented in the next chapter. What have not been addressed here are the ways in which the case analysis procedures were implemented to explore patterns both across lessons (days) and across teacher. Essentially, the analytic principles remain the same. What changes is simply the scope of the guiding questions in terms of the breadth of data to be explored. For example, the questions to be addressed in Chapter 6 are as follows:

1. What aspects of instruction are stable within and across lessons for a given teacher?
2. In what ways is an effective classroom manager similar to and different from a less effective manager in (a) lesson delivery, and (b) establishment of norms and expectations for participation and performance?
3. In what ways is an effective teacher similar to and different from a less effective teacher in a) the distribution and coverage of academic content and b)

the nature and frequency of themes signalled in
support of the academic task demand?

Exploration of these questions requires movement beyond the within case models. These questions also require examination of lesson structure in relation to external measures of teacher effectiveness, i.e. observer ratings of management effectiveness and student achievement scores. Sampling techniques used in selection of the theoretical sub-sample, which are described in the concluding section of this chapter, enabled comparison and contrast across lessons and across teachers in terms of management effectiveness and instructional effectiveness. Representative findings are presented in Chapter 6.

Sample Selection for the Focused Exploration

A theoretical sub-sample of four teachers was selected for observation in the in-depth, focused explorations that will be presented in the next two chapters. The sampling procedures described here utilized findings obtained in the preceding sets of analyses related to training. In other words, the findings generated in the quantitative examination of classroom management and student achievement were used to guide selection of the smaller sub-sample to be used for the in-depth microanalyses. Thus, these sampling approaches represent the bridge between the far and near vantage points taken in observation of the classroom management phenomena. By selecting teachers who represented different points on the dimensions of management and student achievement, sampling for the subsequent analyses could be conducted in a principled and systematic manner.

A central objective in selecting the sub-sample was to achieve representativeness on both a management effectiveness continuum and an instructional effectiveness (student achievement) continuum. Other interests included selection of both trained and untrained (control group) teachers, teachers representing both junior high schools in the school district in which the training was conducted, and teachers in comparable subject matter areas. Rank order arrangement of all teachers in the larger sample (N = 16) was accomplished through comparisons possible within the available data bank and as a result of findings on the relationships between training and achievement (see Chapter 3, this volume). Additional factors that prompted selection of Teacher A included her position as runner-up in a state teacher of the year competition and her reputation within the school and the district as an excellent teacher. As will be seen, these external measures of effectiveness are corroborated by her position as an outlier in the data comparisons that follow. Rank order placement of the teachers is examined separately for each of the effectiveness dimensions in the next sections.

The Classroom Management Dimension

Observers' ratings on management variables for the sample of observations conducted over the school year were averaged for each teacher. Table 4.5 contains mean scores for the four teachers who were eventually selected. Teacher A's ratings were almost consistently the highest in the entire sample of 16 teachers (see Note 4). Teacher D's ratings, in contrast, were the lowest in the larger sample. A natural break in the distribution of mean scores for all teachers in the larger sample was selected as the basis for designating high and low, i.e. effective management vs. less effective management. Teachers A, B, and C represent the effective management group, i.e. the higher scores; Teacher D, the lower or less effective management group. Teacher C represents a near mid-point on the management dimension; that is, she can also be described as a moderately effective classroom manager. Observers' ratings for Teacher C, who was a member of the control group, were among the highest for the teachers who did not take part in the classroom management training prior to data collection.

Insert Table 4.5 about here

The Student Achievement Dimension

Examination of student achievement data is complex. The test data available varied according to student grade level. District administration of a criterion-referenced test (CRT) in language arts involved seventh and eighth grade students, but not ninth grade students. Test data were available for ninth grade students, but these data involved different testing instruments. Systematic rank order comparisons across all grade levels were therefore not possible. As suggested earlier in this report, this set of circumstances reflects a

Table 4.5

Teachers' mean scores on selected management variables related to implementation of the management model.*

	Teacher A	Teacher B	Teacher C	Teacher D
Instructional Management				
1. Describes objectives clearly	5.0	5.0	5.0	3.8
2. Directions for work are clear	5.0	4.5	4.5	3.3
3. Appropriate pacing of lesson	5.0	4.8	4.3	2.5
4. Monitors student work	5.0	4.5	4.8	2.0
5. Enforces work standards	5.0	4.9	4.3	1.8
Rules and Procedures				
6. Efficient administrative routines	5.0	5.0	5.0	2.4
7. Appropriate general procedures	5.0	5.0	5.0	1.7
Meeting Student Concerns				
8. Student success	5.0	4.3	4.3	3.2
9. Attention spans considered	5.0	4.3	4.3	1.9
Managing Student Behavior				
10. Restrictions on student movement	4.9	4.8	3.5	1.3
11. Rewards appropriate performance	5.0	4.5	4.2	1.3
12. Signals appropriate behavior	3.5	4.4	2.0	1.3
13. Consistency in managing student behavior	5.0	4.8	3.9	1.3
14. Effective monitoring	5.0	4.4	4.6	1.8

Table 4.5 (continued)

	Teacher A	Teacher B	Teacher C	Teacher D
Inappropriate Behavior				
15. Amount of inappropriate behavior (1=none; 5=half the class most of the time)	1.0	1.7	2.0	4.9
16. Stops inappropriate behavior quickly	-	4.7	4.3	2.0
17. Ignores inappropriate behavior	-	2.3	4.0	4.9
Classroom Climate				
18. Task-oriented focus	5.0	4.8	4.5	2.4
19. Relaxed, pleasant atmosphere	5.0	4.8	4.5	3.0
Miscellaneous				
20. Avoidance behavior during seatwork (See #15 for scale)	1.0	1.3	1.3	3.0
21. Student cooperation & participation	4.8	4.3	4.3	2.3
Student Engagement				
36. Avg. % of students off-task	0	3.7	7.0	33.3
38. % of students on-task	100	89.3	88.4	55.0

---

* Means for the component ratings are based on 5-point scales. 1 = low occurrence or least characteristic and 5 = high occurrence or most characteristic.)

These scores are averages across 6 observations for each of the 4 teachers.

"real world" situation in which measurements are not optimally geared to research purposes.

Data for the seventh and eighth grade English teachers, ranked according to student mean regression residuals on pre- and post CRT scores, are presented in Table 4.6. As indicated, differences among Teachers B, D, and C were significant ($F(5, 112) = 8.35$, $p < .0001$). Teacher D out-ranked Teacher C. Comparison of these rank order placements with the ranks on management effectiveness (see Table 4.5), reveals that ranks on the two dimensions are not parallel. Teacher C clearly out-ranked Teacher D on the management dimension. In the case of Teacher A, student achievement data (ninth grade) were not comparable to achievement data for Teachers B, C, or D. For the ninth grade teachers, exploratory investigation of comparisons carried little meaning due to large within-class variances in the ninth grade classes. An estimation of Teacher A's level of achievement effectiveness in relation to any other teachers in larger sample was not possible.

Insert Table 4.6 about here

These circumstances made placement of teachers within a management/achievement typology, although not impossible, somewhat problematic. Moreover, earlier explorations of audiotape transcriptions over a sample of lessons for all teachers suggested to the researchers that a closer examination of the achievement data was warranted.

Table 4.6

Teachers ranked according to student mean regression residuals on pre- and post criterion-referenced test (CRT) in language arts.

Teacher[a]	Rank	Mean Residual
7th and 8th grade classes		
Teacher E	1	8.80
*Teacher B	2	8.49
Teacher F	3	2.28
*Teacher D	4	-2.86
*Teacher C	5	-4.39
Teacher G	6	-5.10
		$F(5, 104) = 8.35^*$

[a] Because Teacher A's class was administered different pre- and post tests, a direct comparison of achievement gain with the above group was not possible. An alternative method was used to assess Teacher A's rank-order on achievement gains (see Table 4.7).

* $p < .0001$.

Specifically, these earlier explorations of the recorded lessons were conducted by two of the researchers who, at that time, had no awareness of teacher rankings on the student achievement data. Nonetheless, these two researchers formed expectations about the quality of instruction in the various classrooms. When the quantitative data were later introduced by another member of the research team, teacher rankings on the management variables were congruent with expectations; rankings on the achievement dimension were surprising. In light of the researchers' shared interests in relationships between classroom management and instructional effectiveness, and in examining the compatability of perspectives and findings from two alternative research traditions, identification of this anomaly in the data is important. It goes beyond satisfaction of the need to classify teachers within a typology for sampling purposes. A fuller elaboration on the implications of this discovery, which extend to matters of policy in the observation and evaluation of teaching, is provided in Chapter 7. For present purposes, however, the steps taken in further exploration of the achievement data are described next.

Student Achievement: An Alternative Ranking Technique

Initial explorations of the discordance between achievement data rankings and researchers' expectations began with investigation of within-class variability for selected teachers and selected classroom groups. Achievement level categories were arbitrarily designated as high (71-100), middle (31-70), or low (1-30) in a way that patterns of achievement level distribution within the single class groups could be systematically compared. Students were classified in the achievement level categories at both pre- and post to permit examination of within-class movement between the achievement level groups over time. Pre- and post scores, arranged according to the group level designations, are presented for each of the selected classes in Tables 4.7 - 4.10.

Insert Tables 4.7 - 4.10 about here

As shown in Table 4.7, Teacher A's first period, ninth grade English students demonstrated change from pre- to posttesting. Of those students who started in the lower sector of the class, 67% were achieving at the middle group level at posttest time. Of the original middle group, 37.5% moved to the high level. None of those students who started in the high or middle groups dropped in group status. Additionally, in comparing the size of the low groups across teacher at the beginning of the year (see Tables 4.8, 4.9, and 4.10), it is evident that Teacher A started with a proportionately larger number of low group students than the other teachers.

Examination of Table 4.8, for Teacher B, also reveals upward mobility. That is, 37.5% of the students originally in the low group moved to the middle group and 25% of the middle group moved to the high group. Just as for Teacher A, none of Teacher B's students dropped in group status. As shown in Table 4.9, Teacher C's class, there was no

Table 4.7

Student scores on pre- and post achievement tests by achievement level group, Teacher A, ninth grade English.

	High Group (71-100)		Mid-group (31-70)		Low Group (1-30)	
	Student	Score	Student	Score	Student	Score
Pre-test SATBS[a] (Range: 1 - 98)						
	01	98	03	63	11	20
	02	78	04	51	12	20
			05	45	13	16
			06	43	14	16
			07	43	15	14
			08	42	16	06
			09	42	17	03
			10	34	18	02
					19	01
	n = 2		n = 8		n = 9	
Posttest SRA[b] (Range: 5 - 95)						
	01(+0)[c]	95	13(+1)	68	16(+0)	14
	08(+1)	91	04(+0)	68	17(+0)	09
	03(+1)	86	06(+0)	68	18(+0)	05
	02(+0)	77	05(+0)	68		
	10(+1)	77	07(+0)	68		
			19(+1)	55		
			09(+0)	55		
			14(+1)	50		
			12(+1)	45		
			15(+1)	41		
			11(+1)	36		
	n = 5		n =11		n = 3	

67 % of low group moved to mid-group.
37.5% of mid-group moved to high group.
0 % drop from high group.

N = 19

[a] SATBS: State Assessment Test of Basic Skills.

[b] SRA: Science Research Associates

[c] (+0): no group movement; (+1) movement up one group level.

Table 4.8

Student scores on pre- and post achievement tests by achievement level group, Teacher B, eighth grade English.

	High Group (71-100)		Mid-group (31-70)		Low Group (1-30)	
	Student	Score	Student	Score	Student	Score
Pre-test						
CRT[a]						
(Range: 0 - 83)						
	01	83	03	61	11	26
	02	74	04	61	12	22
			05	61	13	22
			06	52	14	22
			07	52	15	17
			08	51	16	13
			09	39	17	04
			10	35	18	00
	n = 2		n = 8		n = 8	
Posttest						
CRT						
(Range: 4 - 91)						
	01(+0)[b]	91	08(+0)	70	13(+0)	26
	03(+1)	83	05(+0)	70	16(+0)	26
	02(+0)	83	07(+0)	61	17(+0)	13
	04(+1)	74	06(+0)	57	18(+0)	04
			10(+0)	44		
			09(+0)	44		
			12(+1)	35		
			14(+1)	35		
			11(+1)	35		
	n = 4		n = 9		n = 4	

37.5% of low group moved to mid-group.
25 % of mid-group moved to high group.
0 % drop from high group.

N = 18

[a] CRT: Criterion-referenced test, language arts.

[b] (+0): no group movement; (+1): movement up one group.

Table 4.9

Student scores on pre- and post achievement tests by achievement level group, Teacher C, seventh grade English.

	High Group (71-100)		Mid-group (31-70)		Low Group (1-30)	
	Student	Score	Student	Score	Student	Score
Pre-test CRT[a] (Range: 4 - 74)						
	01	74	02	70	14	30
			03	70	15	26
			04	65	16	22
			05	65	17	17
			06	65	18	13
			07	65	19	13
			08	65	20	09
			09	65	21	04
			10	57		
			11	52		
			12	52		
			13	52		
	n = 1		n = 12		n = 8	
Posttest CRT (Range: 4 - 78)						
	01(+0)	78	08(+0)	70	15(+0)	30
			06(+0)	65	14(+0)	26
			03(+0)	65	16(+0)	22
			05(+0)	61	17(+0)	22
			02(+0)	61	19(+0)	17
			07(+0)	61	18(+0)	13
			09(+0)	61	20(+0)	04
			11(+0)	57	21(+0)	04
			10(+0)	52		
			12(+0)	52		
			04(+0)	39		
			13(+0)	39		
	n = 1		n =12		n = 8	

No movement between groups.

N = 21

[a] CRT: Criterion-referenced test, language arts.

Table 4.10

Student scores on pre- and posttest achievement tests by achievement level group, Teacher D, 8th grade English.

	High Group (71-100)		Mid Group (31-70)		Low Group (1-30)	
	Student	Score	Student	Score	Student	Score
Pre-test CRT[a] (Range: 12-92)						
	01	92	09	64	20	28
	02	92	10	60	21	24
	03	84	11	56	22	24
	04	84	12	56	23	16
	05	80	13	48	24	16
	06	80	14	48	25	16
	07	80	15	48	26	12
	08	72	16	44		
			17	44		
			18	36		
			19	36		
	n = 8		n = 11		n = 7	
Posttest CRT (Range: 12-96)						
	01 (+0)	96	08 (+0)	68	20 (+0)	28
	02 (+0)	92	09 (+0)	64	21 (+0)	24
	03 (+0)	84	10 (+0)	60	22 (+0)	20
	04 (+0)	80	11 (+0)	56	23 (+0)	20
	05 (+0)	80	12 (+0)	56	24 (+0)	12
	06 (+0)	80	13 (+0)	44	25 (+0)	12
	07 (+0)	76	14 (+0)	44	26 (+0)	8
			15 (+0)	40		
			16 (+0)	44		
			17 (+0)	40		
			18 (+0)	40		
			19 (+0)	36		
	n = 7		n = 12		n = 7	

0 % of low group moved to mid group.
0 % of mid group moved to high group.
1 student dropped from high to mid group.

3 students gained in score.
12 students showed no gain.
11 students lost points.

N = 26

[a] CRT: Criterion-referenced test, language arts.

upward movement in achievement group between pre- and posttest. By the same token, however, no students dropped in group status. Examination of Table 4.10, Teacher D's students, also reveals no gains in group status; one student dropped from high group to middle group. In addition, score comparisons within each of the three groups in Teacher D's class indicate that 11 students demonstrated no change from pre- to posttest and 11 students scored lower at posttest than at pre-test.

The rank order of teachers according to this alternative method of analyzing student achievement gains produced sharp contrasts in comparison to the rank-order placements designated in terms of mean regression residuals. For Teachers C and D, rank order placements are reversed (see Table 4.6). The final decision to adopt the alternative strategy was based on two interdependent factors. First, there was a need to limit the number of classroom groups to be observed in the focused explorations. This was necessary given selected constructs within the sociolinguistic perspective, e.g. classrooms are communicative environments, and contexts are constructed through interactions (over time). The second, related factor, involves ways that data are aggregated in the traditional statistical procedures. These techniques entail computations based on "pooled" group means. That is, the calculations incorporate student performance in multiple classes for each teacher. Thus, rank-ordering according to the traditional techniques would introduce achievement data for students in classroom groups that were not to be in included in the subsequent analyses. The alternative technique permitted limitation of the achievement data introduced into the analysis to only the data on students in the single classes that would be further examined. Achievement data for students in Teachers A, B, C, and D's other classes would not confound the rank-order placements. The decision to adopt the alternative method for designating teacher ranks on the achievement dimension was therefore not arbitrary; it was principled and systematic.

The Management/Achievement Typology

Following the decision to adopt the alternative techniques for comparing teachers in terms of achievement effectiveness, teachers' names were changed to the letter designations, e.g. Teacher A, B, C, and D (these are the identifiers that have been used throughout this report). The designations by letter were selected to reflect the teachers' parallel placements on the management effectiveness and the achievement (instructional effectiveness) dimensions: A representing the highest teacher on both dimensions, B the second highest, and so forth. A typology relating the two dimensions and showing the relative placement of teachers in the sub-sample on each is provided in Figure 4.5. Designation of the dividing lines between effective and less effective was based on natural breaks in the data, as described above for the management data. The natural break in the rank order comparisons on the instructional effectiveness dimension (using the alternative rank-order teachinque) was between Teachers B and C. That is, classes showing within-class upward mobility (Teachers A & B) were placed in the effective group; classes showing no mobility or loss in group status (Teachers C and D) were designated as less effective. As indicated within each cell in Figure 4.5, descriptions of the teachers are provided according to treatment group, school, and grade level. All were English teachers.

Insert Figure 4.5 about here

This study was designed as a set of pre-planned comparisons between effective and less effective managers, and between effective and less effective instructors. Thus, the appearance of an empty cell in the typology in Figure 4.5 appears, at first glance, to be a gaping oversight. This is not the case. Rather, there were no teachers in the larger sample of 16 who could be described as less effective managers and effective instructors.

As described in Chapter 2 in this volume, teachers trained in classroom management were rated higher by the observers than the untrained teachers (control group) at statistically significant levels. That is, with rare exceptions in these data (Teacher C, for instance) training and high ratings on management go hand in hand. In regard to the achievement dimension, there were two cases in which untrained (control group) teachers in the larger sample out-ranked the lowest of the trained teachers, but in no cases were the untrained teachers higher at statistically significant levels (see Chapter 3). For the two control group teachers who did rank somewhat higher than the lowest

		ACHIEVEMENT	
		Effective	Less Effective
MANAGEMENT	Effective	TEACHER A Experimental group[a] School M - 9th grade English TEACHER B Experimental group School N - 7th grade English	TEACHER C Control group School M - 7th grade English
	Less Effective		TEACHER D Control group School N - 8th grade English

[a] Experimental treatment consisted of exposure to a program of classroom management training.

Figure 4.5. Description of teachers and classrooms selected for sub-sample by level of management effectiveness and level of student achievement (instructional effectiveness).

in the management/achievement typology are presented in Chapter 5. Comparisons and contrasts across the sectors in the typology, which were intended to isolate factors that would explain the differences between ‘what is necessary’ and ‘what is sufficient’, are presented in Chapter 6.

NOTES

1. The focused exploration conducted in this study cannot be described as either a sociolinguistic analysis or an ethnographic analysis due to limitations in the ways the data were collected. Recordings of classroom lessons were made on audiotape, and therefore no records of nonverbal features of the classroom communications were available. Additionally, the classroom teachers were not involved as part of the collaborative team concerned with this phase of data collection or analysis. Teachers played no role in either influencing the articulation of research questions to be addressed, in describing instructional objectives or lesson intents, or in contributing reflective comments or interpretations following the observations. Interviews were conducted with the teachers, but this occurred almost two years following data collection. The methodology described in this chapter involved the application of a sociolinguistic perspective to data that were available for analysis.

2. See Bloome & Green (1982) for further discussion of contexts from different perspectives.

3. Transcription conventions including notational systems for representing paralinguistic cues have been devised and are available. See, for instance, Tannen's Conversational Style: Analyzing Talk among Friends (1984).

4. Teacher A ranked lower than comparison teachers in observers' ratings on "signalling appropriate behaviors" (see Table 4.5, item 12). Interpretations for this fact were identified in the subsequent focused explorations. It was suggested that Teacher A did not fail to signal expectations; rather, signals were less overt. "Appropriate" behaviors were in place soon after the first day of school, and thus, overt signals comparable to those demonstrated in other classrooms were neither visible or necessary.

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Chapter 5

The Descriptive Models of Teaching

Descriptions of teaching and learning in four different classrooms are presented in this chapter. In each case, the activities and events depicted took place during a single class period in the month of November. The classes are English classes, referred to within the school district as regular level classes; that is, the students are neither outstanding achievers, nor are they typically regarded as needing special remediation programming. Two junior high schools in an Arkansas city are represented: two of the classes were in one school, and the other two at a second school in the same district.

The four teachers were selected from a larger group of 16 teachers who had participated in a study of the effects of training in classroom management. Two had participated in the training workshops prior to data collection, and the other two had not. Additional factors considered in selection included their subject matter specialty, e.g. English, their schools, and their rank order placements on dimensions of management effectiveness and instructional effectiveness. Thus, sample selection was conducted in a principled and systematic manner. The sampling procedures are described in the preceding chapter and will not be reiterated in great detail here. Brief descriptions of teacher and class are provided at the outset for each of the type case models.

The descriptive models are presented in a case-by-case order from effective to less effective. Three aspects of lesson management are considered in each case analysis: 1) general structural aspects of the lesson including the distribution of content, timing, and the general nature of communication, 2) thematic development, and 3) goal-directedness. The aim in characterization of the lessons is on the establishment of norms for appropriate academic and social participation, and the construction and negotiation of academic meanings. Interpretations and implications related to the nature of instruction as a communicative event are provided throughout. As the reader proceeds through the four case models, obvious contrasts will be noted; nonetheless, systematic comparisons across lesson and across teacher are reserved for consideration in Chapter 6.

Teacher A:

A Model of Effective Management and Effective Instruction

Teacher A out-ranked all other teachers in the larger sample of 16 on the measures of classroom management effectiveness (see Table 4.5, Chapter 4). Examination of pre- and post achievement scores for the group of students in this class revealed a higher rank than in other classroom groups in the sub-sample (see Table 4.7, Chapter 4). Hence, Teacher A ranked highest in both management and instructional effectiveness. She had participated in the management training workshops. Additional factors that prompted her selection included her position as runner-up in a state-wide teacher of the year competition and follow-up interviews that confirmed her reputation both in the school and in the district as an excellent teacher.

This ninth grade English class met during the first period of the school day. The lesson described is a grammar review lesson that occurred on a Wednesday in the third month of the school year. On this day, the teacher and students worked through a test, item-by-item, that they had taken on an preceding day, and that had been graded and returned to them. In reviewing a sample of audio recordings of this class's lessons over the school year, plus a video recording in which the teacher and students had reconstructed the events of the first day of school, this lesson was selected as representative of the general classroom organization and the teacher's instructional style.

Lesson Structure.

The first set of findings relate to the nature of lessons as differentiated communication environments. Table 5.1 provides a description of the general structure of the grammar review lesson. As indicated, the lesson consisted of five separate but "tied" phases. Phase 1 of the lesson required students to give the past and past participle for each of a set of present tense verbs. Students were called on, in turn, to respond. Phase 2 required students to identify the tense of a given verb when called on. Students were expected to volunteer for a turn by raising a hand (bidding) and then to answer if called on. As the teacher signalled this change in the turn procedure, she publicly reasoned that many students had missed items in this section of the test. Phase 3 required students to complete a sentence in which the verb was missing. Students were called on at random by the teacher. In phase 4, students were required to identify the incorrect verb in a given sentence and then read the sentence, filling in an appropriate verb as they read. More than one correct version of the sentence was possible. One student, in turn, was designated to respond; other students then bid for a turn to offer an alternative sentence. Phase 5 required students to listen to the teacher provide the correct responses and then to ask questions if there was some problem.

Insert Table 5.1 about here

In this brief description it is evident that the academic demands shifted with each new phase of the lesson. But as teacher and students moved through the five phases, the social demands also changed. Expectations for how turn was to be distributed, the form in which the response was to be given, and how students were to demonstrate knowledge about verbs were adjusted at the same points that the academic demands changed. This example therefore demonstrates a co-occurrence of particiation demands and content content demands. Also, the shifts were parallel. That is, the teacher adjusted the social task demands as the academic demands changed.

Another, more microanalytic way to consider lesson structure is to focus on the distribution of content within each of the various phases

Table 5.1 Description of lesson phases by participation task, time, instructional sequence, and interaction unit, Teacher A.

Phase	Task	Length (Seconds)	ISU[a] f	ISU[a] $\bar{X}$ length	ISU[a] SD	IU[b] f	IU[b] $\bar{X}$ length (seconds)	IU[b] SD	IU[b] $\bar{X}$ f / ISU
1	Give past and past participle of verb when called on, in turn.	527.8	20	26.43	27.53	88	5.88	3.62	4.4
2	Given a verb, identify the tense when called on.	514.7	32	15.94	12.43	93	5.47	3.38	2.9
3	Given a present tense verb and a sentence with the verb missing, read the sentence, supplying the correct form of the verb when called on.	324.2	22	14.73	10.57	47	6.88	3.36	2.1
4	Given a sentence in which the verb form is incorrect, read the sentence aloud, correcting the verb as you read, when called on.	618.1	18	34.70	32.51	86	6.32	4.42	4.78
5.	Listen as the teacher gives the answers to the task -- given a verb, identify it as active or passive. Check paper against answers given by teacher. Ask questions when all items are finished, if there are any.	179.4	10	17.94	29.17	24	7.48	5.43	2.4

ISU: Instructional Sequence Unit
IU: Interaction Unit

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of the lesson, and on the distribution of teacher-student interactions. Content coverage was considered by phase, as described above, and by instructional sequence unit. An instructional sequence unit (ISU) consists of a set of topically or thematically related interaction units (IUs). Each ISU is defined by its major theme, e.g. the irregular verb "lay". Each time the topic of discussion shifts, a new ISU is designated, e.g. when the class moves from discussion of "lay" to the irregular verb "burst". Reference to Table 5.1 indicates that lesson varied not only in length of phase but also in the number of instructional sequences per phase and in the number of interaction units within phase. That is, in each phase, different amounts of content were covered as indicated by the varying number of instructional sequence units (e.g., 20,32,22,18,16). These figures do not provide a complete picture, however. The existence of the difference does not explain the nature of the difference, what contributed to the difference, or what effect the difference had on student participation and student learning. In order to explore these issues, the relationship among such factors as time, content, and demands were considered.

Two of the lesson phases, phase 1 and phase 4, were selected on the basis of their similarities in the amount of content covered (20 ISUs in phase 1; 18, in phase 4), and in the number of interactions between teacher and student (88 for phase 1 and 86 for phase 4). In terms of these two structural dimensions, the lesson phases appear similar. They form a contrastive set, though, in terms of content or task demand. They also differ in overall length of time (527.8 seconds and

618.1 seconds, respectively) and in average length of ISU per phase (26.4 seconds and 34.7 seconds). In other words, these two phases provide a basis for exploring similarities and differences and, in turn, the factors that contribute to the differences.

By considering the distribution of time within the two phases, systematic exploration was continued. The length of time of each instructional sequence unit (topic) had been recorded on the detailed map. These time designations were then graphed as illustrated in Figure 5.1. What becomes evident here is the fact that in phase 1, the modal length of time for each instructional sequence is less than 10 seconds. In phase 4, the modal length of time is 10-20 seconds. That is, the interactions by topic were shorter in phase 1 than in phase 4. There was one lengthly instructional sequence in both phases. Although the overall time for the phases was different, the number of interactive contacts was not essentially different, as indicated by the frequencies of interaction units (88 IUs in phase 1; 86 in phase 4). The longer time for each ISU in phase 4 contributed to its longer total length in comparison to phase 1, but the increased length of lesson phase did not produce an increased number of interactive contacts. Rather, contact opportunities were related to the item-by-item structure used by the teacher. The interaction patterns remained similar across the two lesson phases. Recourse to the detailed map of the instructional conversation revealed that the task demand in phase 1 was more constrained than in phase 4. In phase 1, students were asked to give a two word answer; in phase 4, they were to read a sentence. The difference in response requirements explains the time differential. In other words, even though the nature of the academic tasks (what to know about verbs) and social tasks (how to say what you know) changed and influenced lesson construction, the rhythm and flow of the interactive contacts remained fairly constant. Teacher and students rarely missed a beat.

Insert Figure 5.1 about here

Identification of this quantitative phenomenon prompted further exploration of the time-interaction-content pattern. Again, time was used as the means for entering the data to explore questions about what was occurring. Frequency polygons were constructed to show the distributions of time per ISU for each phase, as illustrated in Figures 5.2 and 5.3. This assisted in the identification of sequence units that were extended in time in comparison to the norm (the mode), and then the original map of the instructional conversation could be examined to identify patterns of consistency and/or variability in normal and in extended ISUs. Examples of normal or ordinary ISUs (both time and pattern) and elaborated ISUs for each phase are presented in Figures 4.2 and 4.3 (see Chapter 4). The pattern in the ordinary ISUs is highly consistent. A system for responding is established and is adhered to by both teacher and students in the average length ISUs. In the extended ISUs, elaborations were generally related to one of two factors: clarification of some point of content initiated by the teacher, e.g. a

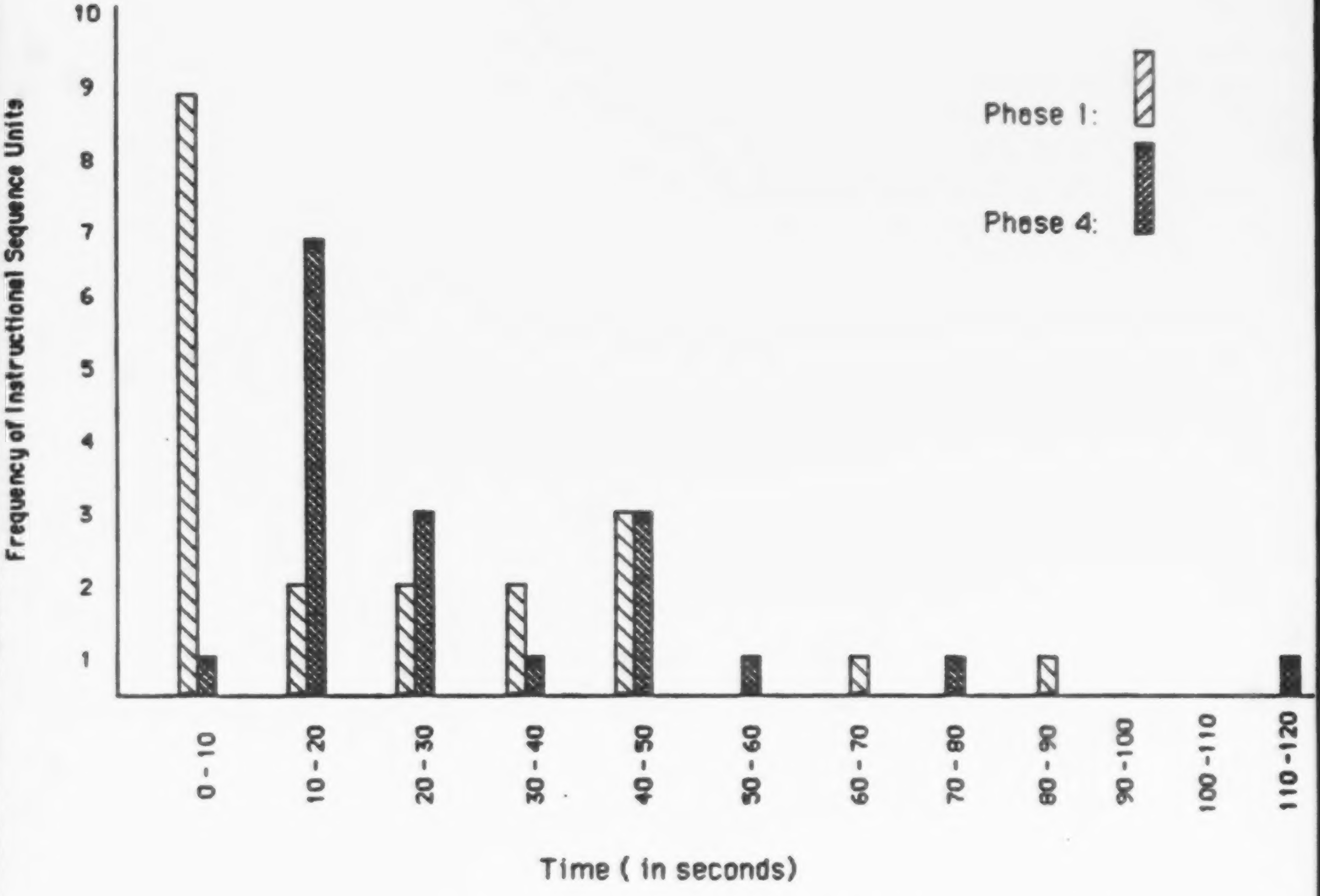

Figure 5.1. Frequency of instructional sequence units (ISUs) by length of time in seconds, Teacher A, phases 1 and 4.

mini-lecture, or 2) content presentation that did not go as expected, e.g. an error, a misunderstanding, etc.

Insert Figures 5.2 and 5.3 about here

The findings presented above demonstrate the constructed nature of lessons. Although the lesson was direct in terms of instructional strategy, it was not scripted. The teacher and students had to constantly monitor what was occurring in order to know what to do and how to do it. The teacher demonstrated a sensitivity to student needs and to the variable difficulty of the content. Evidence for this is based on the fact that extended instructional sequences occurred at points where the students had had difficulty on the test, or at points where students who were called on to respond made errors. Furthermore, students contributed to lesson structure. In phase 4, where more than one correct response was possible, students volunteered additional alternative answers. This occurred even though the teacher verbally indicated the need to move forward because time was running out. Therefore, teacher, students, materials, and time influenced the nature of the lesson.

Thematic Development

The lesson as a whole was on verbs, and yet each phase of the lesson focused on different ways of demonstrating knowledge about verbs. Reference to Table 5.1 shows the progression by phase of these ways of demonstrating knowledge. When the content of each phase was considered,

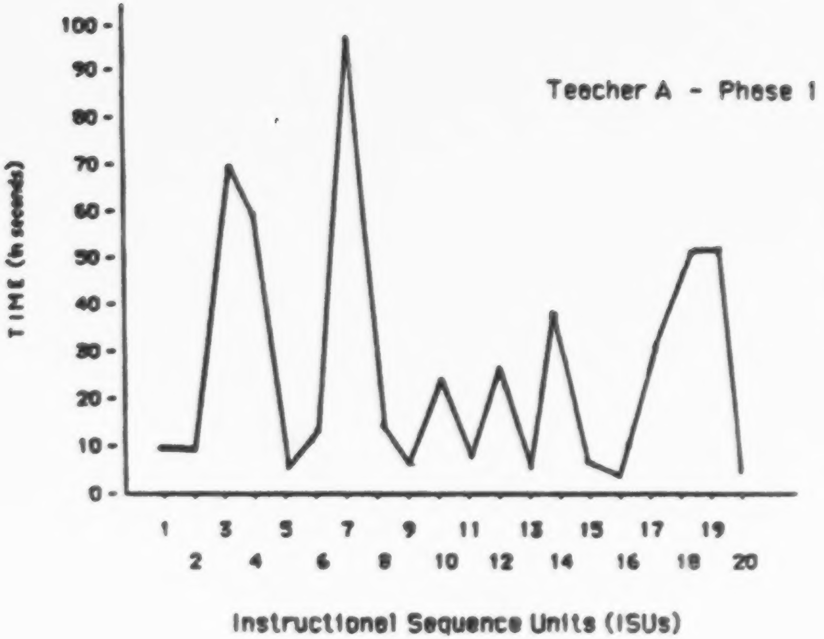

Figure 5.2. Instructional sequence units by length of time, phase 1.

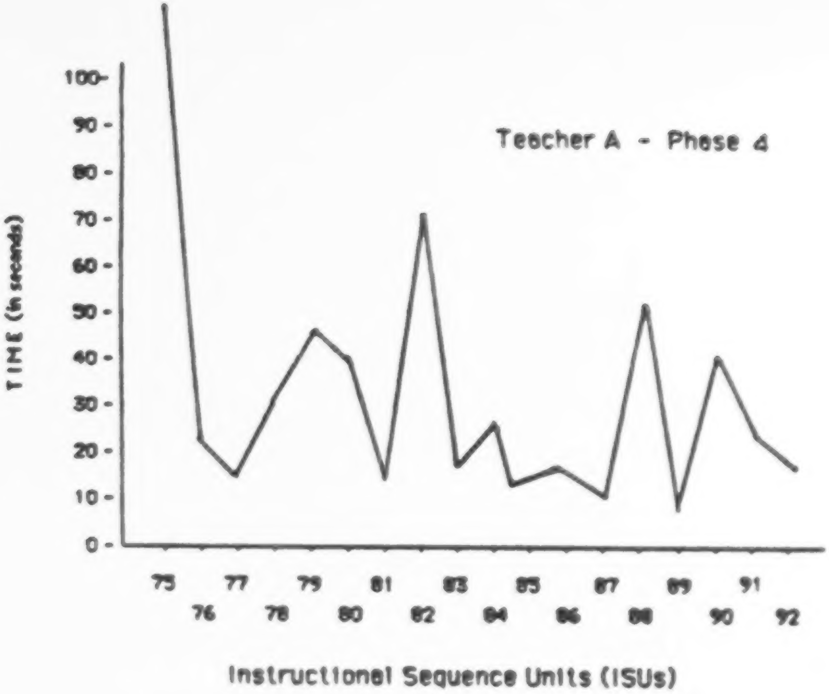

Figure 5.3. Instructional sequence units by length of time, phase 4.

factors that influenced student performance became visible. To illustrate these findings, summary charts were constructed from the map of the instructional conversation for phases 1 and 4. These charts are provided in Tables 5.2 and 5.3. Topic and content themes are listed as well as the length of the instructional sequence unit, both in terms of frequency of interaction and time.

Insert Tables 5.2 and 5.3 about here

Examination of Table 5.2 reveals a predominant theme of irregular verbs. The last two items in this section of the test, however, were regular verbs. Sub-themes, including the spelling of the verbs, their meanings, and content about principal parts, recurred across all phases of the lesson. The theme of regular and irregular verbs also recurred across phases, but with less frequency following phase 1. All themes were frequently signalled in an interactive way rather than in mini-lecture fashion. The strategy appeared to be one of cycling and recycling information through question and answer sequences. Themes were also signalled to highlight potential problem areas, with the suggestion that students could avoid these in the future if they understood the problem. The correct use of grammar was a major theme. Parenthetically, in the filmed reconstruction of the first day of

Table 5.2

Content and Theme Distribution by Time, Teacher A, phase 1.

Instructional Sequence Unit (ISU)	Topic	Content Themes Signalled	Length of ISU: Interaction Units (IU)	Length of ISU: Time (Seconds)
1	(a verb)[a]		2	8.2
2	rise	irregular verb spelling	2	8.0
3	lie	irregular verb meanings	9	70.2
4	be	irregular verb principle parts	7	59.2
5	(procedural statement: Skip C, she wasn't here)		1	4.8
6	have, has	irregular verb	3	13.2
7	Using have, has in sentences	irregular verb	13	98.6
8	choose	irregular verb spelling	3	13.1
9	see	irregular verb	1	5.0
10	swim	irregular verb principle parts	4	24.0
11	drew	irregular verb	1	6.1
12	lay	irregular verb meanings	7	25.0
13	give	irregular verb	1	4.5
14	bring	irregular verb	8	37.5
15	ring	irregular verb	1	7.1
16	inaudible interaction		1	3.3
17	take	irregular verb	5	30.6
18	drown	regular verb	9	51.9
19	raise	regular verb	9	52.5
20	Questions on part 1.	Conclude part 1	1	4.9

[a] student's response was inaudible; the teacher signalled that response was correct.

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Table 5.3

Content and Theme Distribution by Time, Teacher A, phase 4.

Instructional Sequence Unit (ISU)	Topic	Content Themes Signalled			Length of ISU	
					Interaction Units (IU)	Time (Seconds)
75	ain't	correct the incorrect verb form	meaning	"sound" is a clue think of an alternative "sound" is a clue	9	119.2
76	lay	correct the incorrect verb		"sound" is a clue	4	22.8
77	busted	correct the incorrect verb		"feel" is a clue	4	17.0
78	lay	correct the incorrect verb			4	30.2
79	lying	correct the incorrect verb	meaning	spelling	7	43.6
80	droum	correct the incorrect verb		spelling	7	40.7
81	have	correct the incorrect verb			3	13.5
82	lay	correct the incorrect verb	meaning	don't channe tense mid-sentence	10	74.2
83	ain't	correct the incorrect verb			3	18.2
84	froze	correct the incorrect verb			3	24.6
85	rose	correct the incorrect verb		don't just add "ed" to irregular verbs	2	13.4
86	ain't	correct the incorrect verb			3	17.5
87	may/can	correct the incorrect verb	meaning		2	10.4
88	rose	correct the incorrect verb		"sound" is not always a good clue	6	53.6
89	saw	correct the incorrect verb			1	6.5
90	may/can	correct the incorrect verb	meaning		9	41.9
91	has risen	correct the incorrect verb		use "up" with "rose when you need	5	22.5
92	questions?				4	14.8

school, the teacher had set correct grammatical usage as a primary goal for the class.

When the content of each instructional sequence in phase 1 was considered in terms of the intersection of time, interaction and content, a problem for both teacher and students was identified. ISUs 18 and 19 were extended both in time and in number of interactions. Exploration of the substantive content distribution revealed that the verbs given in ISUs 18 and 19 were regular verbs, unlike the irregular verbs that had come before. The teacher opened ISU 18 with "Okay, what about drown? That seems like a harmless little um verb to remember, but a lot of people missed it because they misspelled it." In this way, the teacher signalled that a problem existed and reasoned that faulty spelling was the explanation for the problem. Retrospective analysis suggests additional potentially explanatory factors. Specifically, the task structure and the structure of the materials had set a frame of reference for students (Frederiksen, 1981; Green & Harker, 1982; Heap, 1980) about what was required for the past and past participle forms of an irregular verb: to simply add "ed" for both forms would not work. (In the case of a regular verb, adding an "ed" for both the past and past participle forms is a correct response). In ISU 18, "drowned, [had] drowned" was the correct response. The last two items on this section of the test (regular verbs) have a history (irregular verbs). This history serves to cue or prompt students about what is required and what to do. The shift to regular verbs was tacit, e.g. not signalled either in the physical format of the test or by the teacher. It is possible that the students had established a frame that said "we're supposed to add something to get the verb into the past and past participle forms, but just adding 'ed' won't work." This historical frame may have over-ridden the subtle shift in task to regular verbs, e.g. the new local frame.

Further support for the existence of frame conflict was identified in the next item, "raise" (ISU 19). The correct response would have been "raised, raised". The student called on, however, gave "raise and rose". The teacher responded with, "OK Matt, you're thinking about rise, I bet. Rise, rose, risen. I may have made a ... did I make a mistake on your paper there." The teacher appears to be aware of the fact that the student was confused. She is not aware however of the source of the confusion, e.g. the conflicting frames. This interpretation suggests that the structure of the task and/or the materials may over-ride the verbal interaction and may lead to incorrect responses. In other words, apparent errors on the part of the students may be a result of the way in which they interpret the task, and not a result of lack of knowledge. In this example, what occurred was a frame clash -- a clash between what the student expected in light of earlier experiences with the task, and the local frame for the given item. This finding is suggested in the form of a hypothesis. Further testing would have required an interview with the students and the teacher shortly after the lesson. Given the extended time span between data collection and this analysis, further testing was not possible.

In phase 4, consistency of frame was also evident. In this phase, the task required that students correct a sentence in which an incorrect verb form had been used. The students were to reconstruct the sentence using a correct verb. The pattern begins as the teacher calls on a student to read his/her sentence, and states that other students can also volunteer if their reconstructed sentences are different. The primary theme: correct the incorrect verb. Two sub-themes carried over from earlier lesson phases were also signalled: spelling and meaning. A new sub-theme was introduced: use sound as a clue to correctness. Interestingly, the teacher also pointed out that the past and past participle of irregular verbs are not constructed by simply adding "ed."

A frame clash identified in phase 4 is procedural. The teacher signaled that time was running out and indicated a need to "get through" the items quickly. Nonetheless, the teacher had stated at the beginning of this lesson phase that students could give their corrected versions of the sentences if different than the sentence given by the first student called on. Several students continued to volunteer their sentences in some ISUs, thus explaining the extended time in the longer ISUs. Students had read one set of rights and obligations signalled by the teacher at the beginning of the phase; they failed to read the teacher's signalled re-direction after the task structure had been established.

These examples demonstrate how lessons are constructed, the probablistic nature of lessons for both teachers and students, and some possible sources of confusion. They also suggest that student performance may be due to more than ability. Errors in participation and failure to interpret signals for how knowledge is to be demonstrated may stem from errors in communication.

Goal-directedness.

One aspect of the microanalytic mapping procedure involved segmentation of the instructional dialogue into two discrete categories: goal-directed and potentially divergent. A short review of procedure is provided here to clarify important features of this phase of the analysis. Characterization of Teacher A's lesson will follow.

Following preparation of the verbatim typescript and designation of instructional sequence units, the classroom conversation was examined for evidence of any deviations or potential deviations from the teacher's stated goal(s) for the lesson. If found, these potential deviations were then transferred into a separate area of the map under the heading "Potential Divergences from Theme". Any subsequent dialogue was also placed in the potentially divergent column, continuing there until the conversation returned, for whatever reason, to a theme following the teacher's stated goal. Theme or goal were inferred on the basis of the teacher's stated intentions, e.g. "let's just get some voluntary answers on this one"; "alright, now let's talk about active and passive one more time"). In this way, lesson could be examined in terms of goal-directedness. Potentially divergent talk (or, if it continued, divergent talk) could be characterized in terms of frequency across lesson phase or instructional sequence unit, duration, and the extent of interactive contact within the divergence. Sources of potential divergence (PD) could be identified as external (e.g., a knock on the door; a phone call) or internal, e.g. originating with teacher and students. Multiple PDs could be examined for consistency and variability. Additionally, the events and activities preceding a PD, within a divergence, or following the PD could be explored in search of factors contributing to the onset, the continuation, and the resolution of the divergence.

Following completion of the detailed map of the instructional conversation, summary charts were prepared as a means of foregrounding this aspect of lesson structure. Teacher A's summary chart is presented in Figure 5.4. The two categories described above are represented in the center section of the chart, separated by a center "time line", on which each point represents a 7 second time lapse. A continuous "instructional progression line" is drawn to represent the time-ordered sequence of conversation on either side of the time line, and to traverse the time line at points of change from goal-directed to potentially divergent instruction and vice-versa. As indicated in the chart, the instructional progression line is a broken line. Breaks in the line provide an approximate indication of interaction units, and therefore the frequency of interactive contacts within any segment of the lesson. Peripheral columns on the chart are used to record the topic of a potential divergence and its source, e.g. internal or external. A column on the right hand side is used to record change in lesson phase (as indicated by the double line spanning the width of the chart), and the theme or topic in each instructional sequence unit. The organization of the data in this manner assists in the exploration of potential divergences in relation to several aspects of lesson structure including timing, instructional sequencing, interaction, and academic and social task demands.

Insert Figure 5.4 about here

Examination of the summary chart of potential divergences for Teacher A's lesson (Figure 5.4) reveals a single striking characteristic: there are no potential divergences. This is not to say that there were no opportunities for divergent conversation or that divergences did not exist in the course of this lesson. It is conceivable that potentially divergent events transpired, but these were not captured on the audio recorder. What the audio fails to provide is a record of non-verbal messages, and these could likewise have been characterized as goal-directed or as potentially divergent if there had been a record of their occurrence. What the audio did provide was evidence of no potential divergences either within the substantive content of the talk, or in the prosodic or paralinguistic cues (e.g. pitch, stress, intonation, etc.) signalled by teacher or students. This section is therefore a short one. There is no evidence to suggest that Teacher A's lesson was anything but goal directed.

Figure 5.4 Summary chart of potentially divergent (PD) and goal-directed instruction by time, Teacher A.

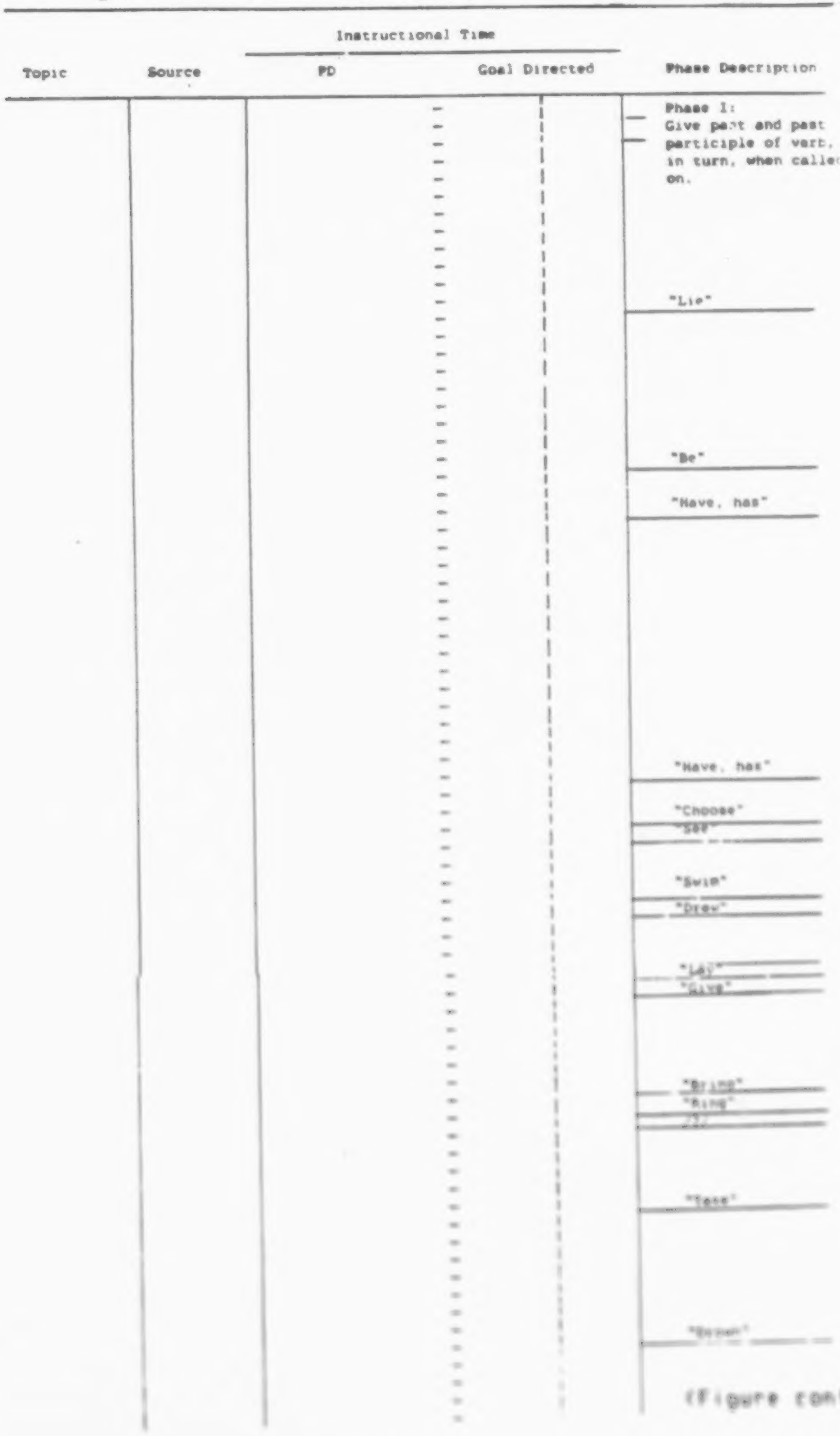

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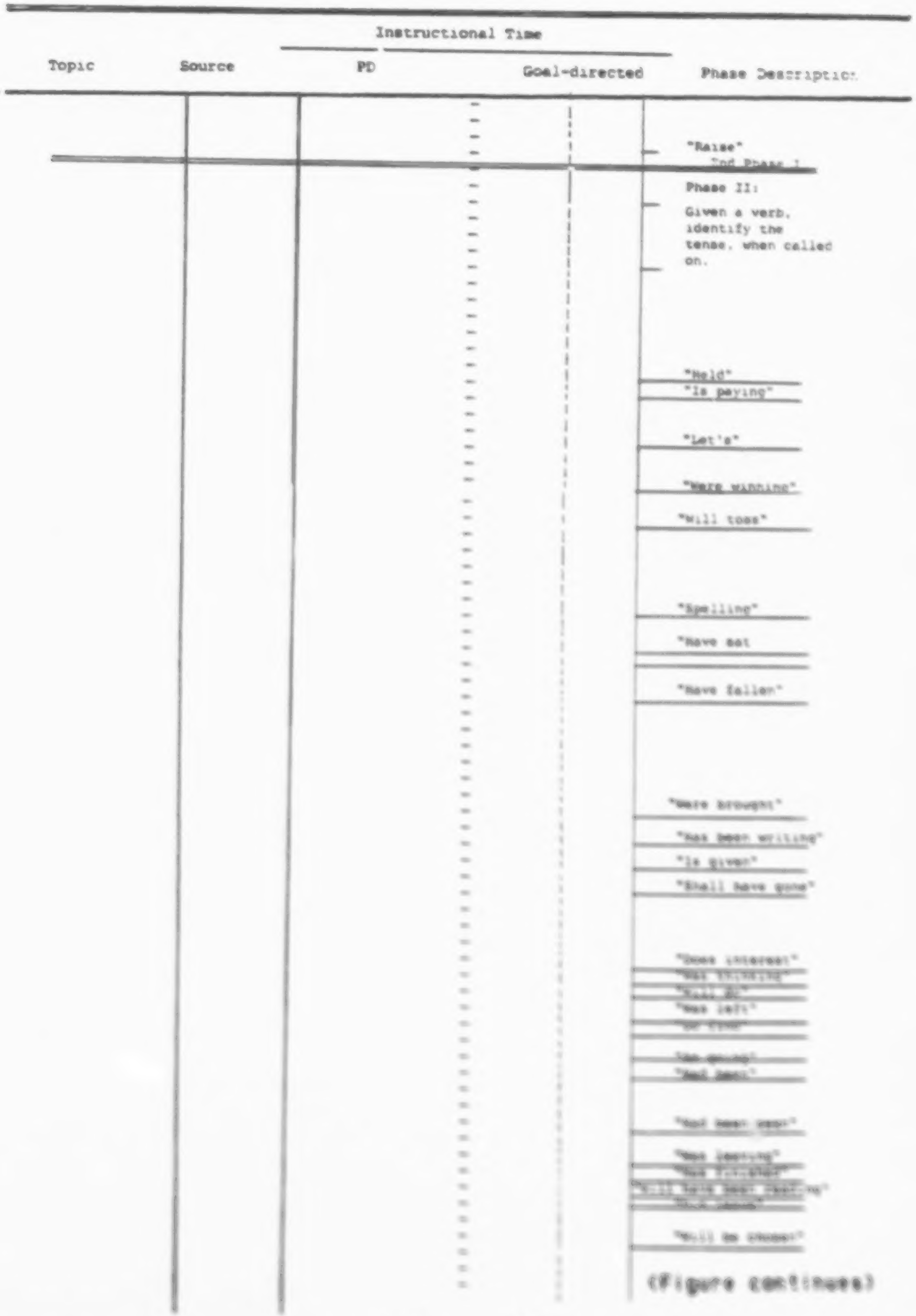
Figure 5.4 (continued)


Instructional Time
Topic
Source
PD
Goal-directed
Phase Description
"Raise"
End Phase I
Phase II:
Given a verb, identify the tense, when called on.
"Hold"
"Is paying"
"Let's"
"Were winning"
"Will toss"
"Spelling"
"Have sat
"Have fallen"
"Were brought"
"Has been writing"
"Is given"
"Shall have gone"
"Does interest"
"Was thinking"
"Was left"
"Will be chosen"

(Figure continues)

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Figure 5.4 (continued)

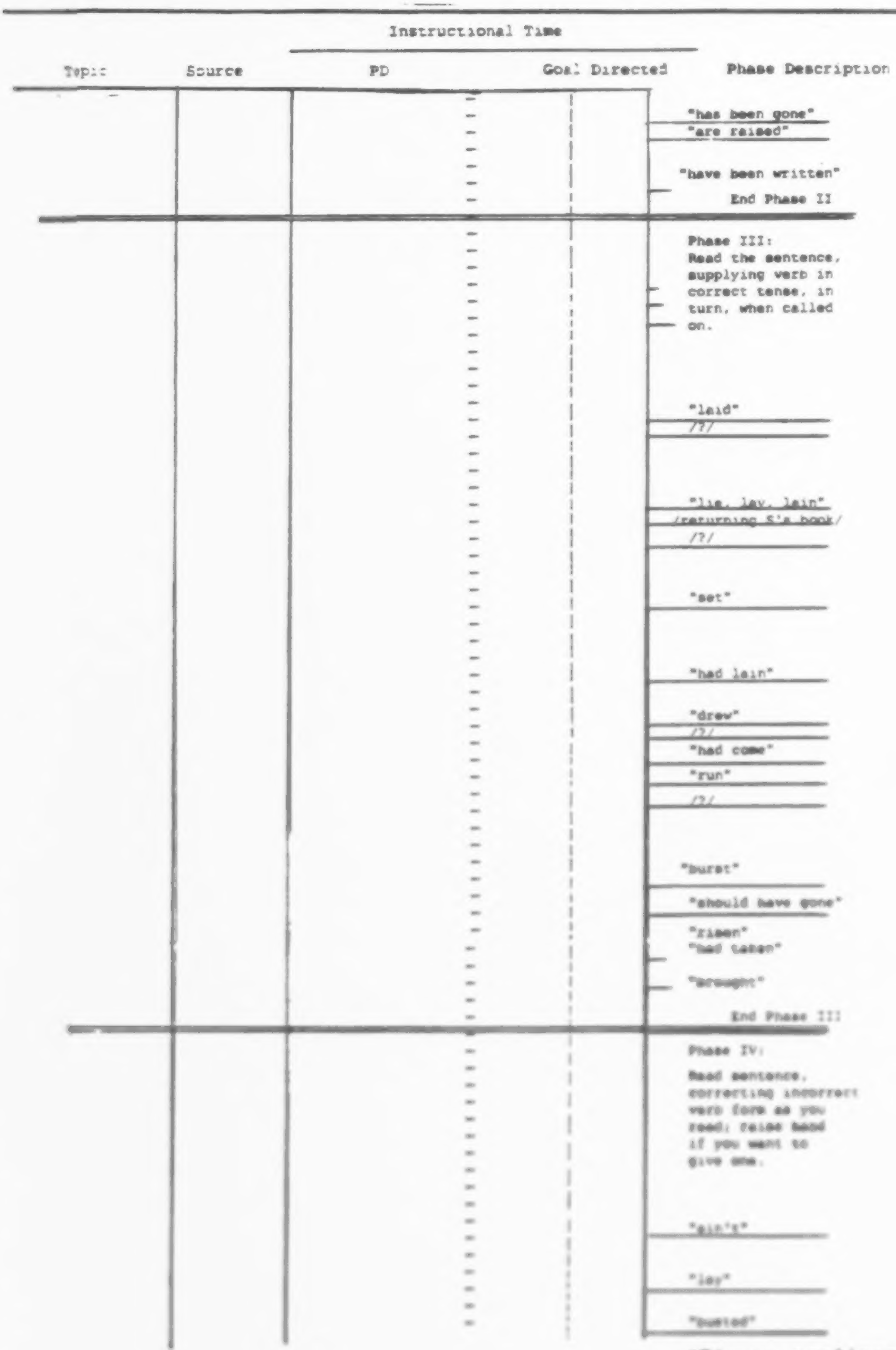

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Figure 5.4 (continued)

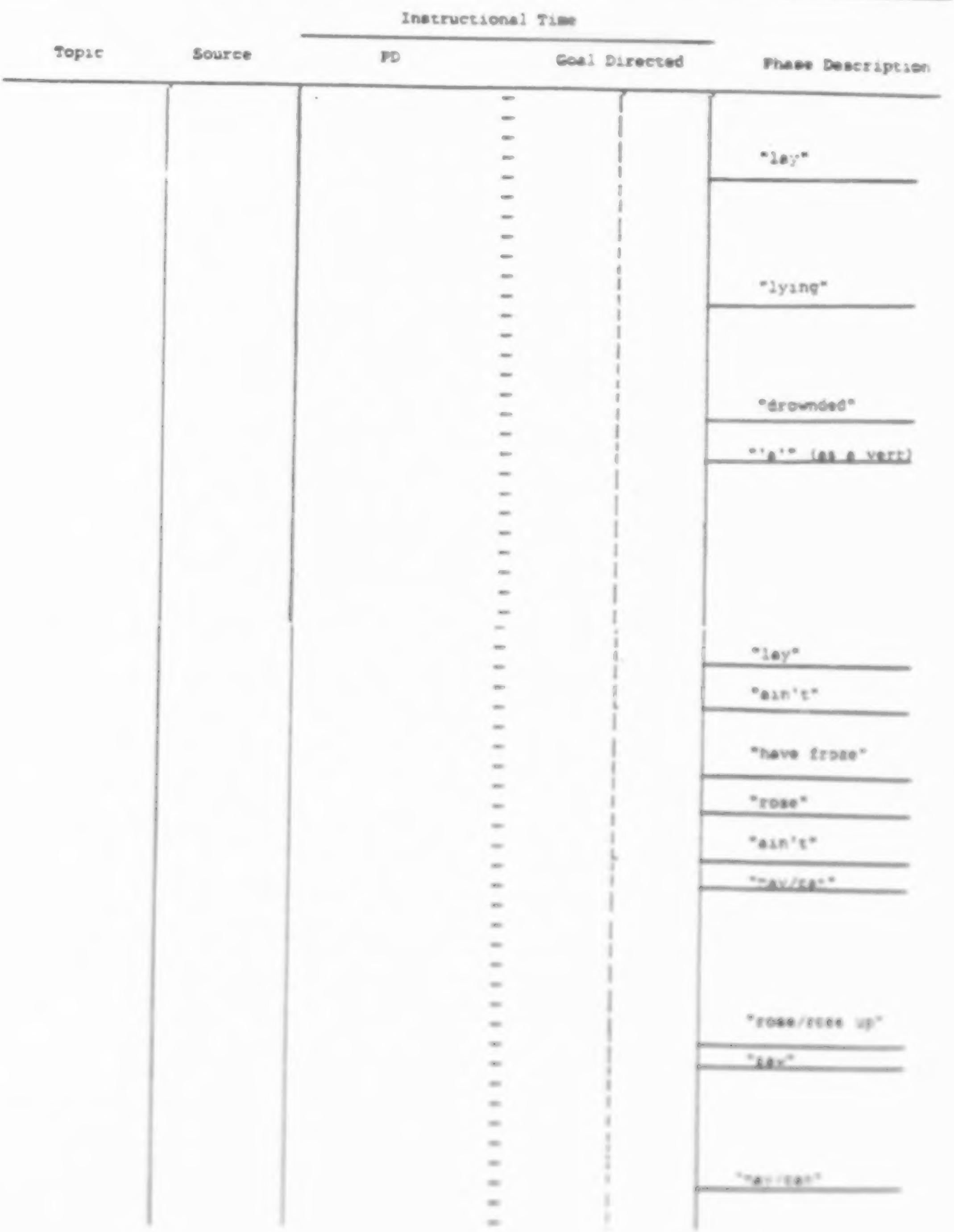

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Figure 5.4 (continued)

Topic	Source	Instructional Time PD	Instructional Time Goal Directed	Phase Description
				"has risen"
				End Phase IV
				Phase V: Listen as teacher gives verb phrase and says active or passive; check paper.
				T. describes rules for telling what is active passive.
				"were thrown"
				"must be repaired"
				"raised"
				"am standing"
				"do like"
				[illegible]
				[illegible]
				"have been [illegible]led"
				"has taught"

/TAPE ENDS/

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Teacher B:

A Model of Effective Management and Effective Instruction

Teacher B demonstrated a second place rank in this sub-sample of teachers on the measures of management effectiveness and instructional effectiveness. Observer ratings on the management variables revealed consistently high ratings (see Table 4.3, Chapter 4); Teacher B had been a participant in the management training workshops prior to data collection. Exploration of student mobility across achievement level groups in Teacher B's sixth period class revealed 37.5% change from low group to middle group, 25% change from middle group to high group, and no downward movement over the course of the school year (see Table 4.8, Chapter 4). Teacher B was therefore classified as an effective manager and an effective instructor. This seventh grade English lesson, which took place during the second week of November, involved the students in identifying auxiliary verbs and verb phrases.

Lesson Structure.

The summary description of the sixth period lesson on verbs is presented in Table 5.4. As indicated, the lesson consisted of at least four distinct but tied phases. In the first phase, students worked individually at their desks on a test. They were given a mimeographed list of "about 40" verbs from which they were to identify 23 that were auxiliary verbs, and then write them on a separate paper, numbering 1 - 23. In phase 2, teacher and students moved into a review of "yesterday's" written exercise; the paper containing this work had been returned to them as they finished the test in phase 1. The exercise was oral, interactive, and proceeded in an item-by-item fashion. Students were expected, first, to raise a hand if they'd had a problem with the item number called out by the teacher, and then if called on, to respond by naming the verb phrase, the main verb, and the auxiliary verb in the given sentence. If no students indicated a problem with a particular item number, the item was not covered in the review. Phase 3 was an oral exercise. Teacher and students were guided by information and practice items in the textbook. The practice items consisted of sentences containing blank spaces. Students were to bid for turn by raising a hand, and if called on, they were to read the given sentence, filling in an appropriate auxiliary verb as they read. Phase 4 consisted of a written exercise taken from the next page of the textbook. Students were to work on a practice set of sentences, writing their answers on a separate sheet of paper, numbering 1 - 10. In the given sentence, the main verb was italicized. Students, working individually at their desks, were to write the entire verb phrase for each sentence and then underline the auxiliary verb(s). Reference to Table 5.4 reveals that phase 4 was only 42.85 seconds long. Just after the expectations in this phase had been signalled by the teacher, the tape recorder was turned off for some reason not apparent to the researchers. There was no record of the events that took place in the remainder of phase 4, although it was clear that the class period had not ended.

Insert Table 5.4 about here

This description of the phase structure in Teacher B's lesson provides further demonstration of the fact that lesson is not a unitary phenomenon. Rather, lessons are structured in terms of highly differentiated parts in which the demands for academic and social participation are more or less consistently and continually shifting. Furthermore, the students' rights and obligations for academic participation (e.g., name the auxiliary verb) and for social participation (e.g., speak when called on) co-occur within each lesson phase.

Examination of quantitative descriptors of the lesson phases, provided in Table 5.4, suggested an initial point of entry for more in-depth consideration of lesson structure. Specifically, the test taking activity in phase 1 constituted a single instructional sequence unit. Since the test was written rather than oral, and students worked independently at their desks, "test" appeared to be a singular phenomenon in terms of the collective task demand for all students. Nonetheless, 105 interactive contacts took place during the phase 1 test. This figure seems high in relation to the apparent social task demand, e.g. work independently on a test. Also, comparison across lesson phases revealed that phase 1 was extraordinary in terms of interactions per ISU, but that it was not especially unusual in terms of

Table 5.4

Description of lesson phases by participation task, time, instructional sequence, and interaction unit, Teacher B

Phase	Task	Length (Seconds)	ISU[a]			IU[b]			
			f	X length	SD	f	X length (seconds)	SD	X̄ f / ISU
1	Take test: number paper 1-23; identify auxiliary verbs in 23 sentences using a list of 40 verbs for reference.	819.99	1	(814.99)	-	105	8.60	9.46	(105)
2	Review yesterday's exercise: raise hand for turn, then name the verb phrase, main verb, and auxiliary verb.	642.29	19	33.82	18.97	114	5.64	3.93	6.0
3	Oral exercise: raise hand for turn. Read sentence, filling in the blank space with an auxiliary verb.	475.63	14	34.06	27.74	67	6.95	4.75	4.77
4	Written exercise: write verb phrase, underlining each auxiliary verb.	42.82	1	(42.82)	-	6	7.14	3.20	-

[a] ISU: Instructional sequence unit
[b] IU: Interaction unit

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interactions per length of lesson phase. (Calculations indicated average frequencies of interaction units per minute in each phase: 7.7 IUs/minute in phase 1; 11.1 IUs/minute in phase 2; and 9.6 IUs/minute in phase 3). Phase 1 was chosen as a point of entry into the data not so much in the interest of comparisons across phases, but rather in a search for understanding of the nature of "test" as an academic and social context in Teacher B's sixth period classroom.

Initial recourse to the detailed map of the instructional conversation revealed that the first 20 interactions in phase 1 essentially involved setting expectations for the test. The teacher gave procedural instructions ("clear your desks, you need a sheet of paper to write on, a sheet of paper to cover with"), gave directions for what to do with the mimeographed test paper (i.e., she set procedural and academic expectations), answered questions, and distributed the test paper to students by row. Students who had been absent on the preceding day were not to take the test, and this required verification during test distribution. Since students were to begin when they received the test paper, i.e. at intermittent times depending on what row they were in, and since the teacher continued to signal procedural expectations for some time after the test was distributed, no clear demarcation was evident that would have divided the single "test" phase into two phases: setting expectations for the test, and taking the test. Interactions that followed distribution of the test involved a wide variety of themes. Representative segments of the interactions are illustrated in Figure 5.5.

Insert Figure 5.5 about here

Examination of Figure 5.5 reveals a range of topics in the interactions: verification of test distribution, seating, reminders about make-up work for work or days missed, signals about the amount of time left for the test, etc. Also, the teacher's intermittent footsteps were audible through the limited view of the tape-recording, indicating that she was moving around the room, alternately monitoring the whole group of test takers and interacting individually with test takers and with others on any number of topics. Much of the tone of the interactions is lost, however, in visual representation. Some messages were delivered by the teacher in a low volume, private and personal voice (e.g., lines 132-135, 136-137, and 186-187), suggesting that the teacher's initiation was intended to involve one particular student. Other messages were enacted in full volume, public voice, available for all to hear. Of these, some were announcements intended for the ears of all test takers (e.g. line 184, 190, and lines 207-211); they were public and not personal in any individualized sense. Other public messages, however, were intended for only a select group of listeners (212-214), or were public and at the same time personal and individualized (e.g. lines 126-131, and 248-254). A case in point is illustrated in lines 248-254. This series of messages, individualized for Tracy and delivered in a full volume, clear, even tone, functioned

Figure 5.5. Representative interactions during phase 1 "test", Teacher B.

Transcript Line[a]	Thematically Tied Interaction Units[b]	Contextualization Cues[c]
126 127	MARSHA DID I GIVE YOU A SHEET yes you did (6.7 sec. pause) 9.8 sec.	PUBLIC VOICE
128 129 130 131	OKAY RONALD YOU NEED TO SIT TOWARD THE FRONT AND NOT TALK TO A SOUL 8.6 sec.	PUBLIC VOICE
132 133 134 135	OKAY GIVE IT BACK TO YOU FRIDAY YOU DIDN'T FINISH THESE /inaudible/ 7.5 sec.	PRIVATE VOICE
136 137	CAN YOU DO THIS CAUSE I TOLD YOU ABOUT IT (3.3 sec. pause) 6.6 sec.	PRIVATE VOICE
184	BE SURE WHEN YOUR FINISHED WE'RE GOING TO GIVE YOU ABOUT FIVE MORE MINUTES 6.2 sec.	PUBLIC VOICE
185 186 187	/assumed inaudible or non-verbal/ YOU'RE GOING TO GIVE UP RIGHT THERE MY GOODNESS (2 FOOTSTEPS) (3.9 sec. pause) 6.7 sec.	PRIVATE VOICE
190 191	RAISE YOUR HAND IF YOU HAVE FINISHED I'm hardly gettin started 5.3 sec.	PUBLIC VOICE

(Figure continues)

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Figure 5.5. (continued)

Transcript Line[a]	Thematically Tied Interaction Units[b]	Contextualization Cues[c]
//////	//////////////////////////	//////////
207 208 209	OKAY TWO MORE MINUTES FOR THOSE OF YOU STILL WORKING ON VERBS (1.7 sec. pause) TWO MORE MINUTES (20.4 sec. pause) 43.9 sec. ↓	PUBLIC VOICE
210 211	OKAY ONE MINUTE (41.0 sec. pause) 42.0 sec. ↓	PUBLIC VOICE
211	PETER IS RETURNING SOME PAPERS 4.2 sec ↓	PUBLIC
212 213 214	THOSE OF YOU WHO WERE ABSENT WE DID A WORKSHEET AND YOU WILL HAVE TO GET IT FOR FOR ME LATER AND PICK IT UP 7.4 sec.	PUBLIC VOICE
//////	//////////////////////////	//////////
248 249 250 251 252 253	TRACY TAKE YOUR THINGS AND BRING THEM OVER HERE WHEN YOU SIT WE'RE READY TO START CLASS AND FINISH THAT TEST yes ma'am 8.9 sec. ↓	PUBLIC VOICE private voice
254	THANK YOU (2.41 sec. pause) 3.9 sec.	PUBLIC VOICE

Note: Students names have been changed.
Punctuation is not used in representation of the dialogue.
Slash lines spanning the width of this summary chart indicate breaks between the sample map segments selected for this illustration.

[a] Line numbers are assigned in sequential order to each discrete message unit. Designation of message units is based on observation of co-verbal, prosodic cues (pitch, stress, pause structure, etc.) preserved on the audio recording.

[b] Discrete interaction units in this summary chart are designated by the single horizontal lines spanning the width of the chart. Single arrows connecting contiguous interaction units suggest that these are "tied", based on, at the least, their juxtaposition in the time-ordered sequence of the instructional conversation.

[c] Contextualization cues include notes, interpretations, or explanations of events evident in the audio recording that are needed for clarification of the mapped conversation.

as a signal to the whole group that the "test" was over. In the next interaction the teacher said "Thank you", not particularly to Tracy, but rather to the whole group, and then, following a 2.4 second pause, Teacher B successfully launched phase 2 of the lesson. Phase 2, as will be demonstrated in a section that follows, was a dramatically different, more highly constrained context in terms of students' rights and obligations for participation than the system established in phase 1.

What the contrasts between public and private interactions suggest is that multiple contexts (activities) were unfolding, interlocking, and overlapping within the 13 minute "test" phase. That is, lessons have not only social and academic task demands, but also context or activity demands (e.g. we're taking the test; we're getting ready to take the test; we're talking about the test -- publicly, or privately; we're waiting on John to finish the test, etc.), each carrying with them their own unique forms of task demand. These context or activity demands are not given, either in the setting (e.g. sitting at desks in rows), or in the test materials (e.g. a list of "about 40" verbs), but are constructed by the participants through their interactions as they work together to achieve the goals of the lesson (cf. Erickson & Shultz, 1981; Green & Weade, 1985; McDermott, 1976; Stoffan-Roth, 1981).

In summary, what the above description demonstrates is that lesson, and in this classroom, "test", is a multi-faceted, complex communication system. The participants, both teacher and students, are continually monitoring what is occurring, how it is unfolding, and who is participating in what particular ways. "Test", in fact, is not a singular event, but rather consists of several different contexts (activities) occurring simultaneously. The teacher continually shifts from monitoring the on-going test-taking, a major theme, to multiple and widely varying sub-themes. Students, in turn, must monitor the teacher's intermittently signalled expectations; determine how, when, and whether or not to participate; juggle the academic, social, and activity demands; construct, interpet, and re-construct text (e.g., read and write the test); and observe teacher responses to others as well as to self in order to determine expectations for what to know and what to do (cf. Cochran-Smith, 1984; Erickson, 1982; Frederiksen, 1981; Morine-Dershimer, in press; Morine-Dershimer & Tenenberg, 1981; Wallat & Green, 1979, 1982).

Thematic Development

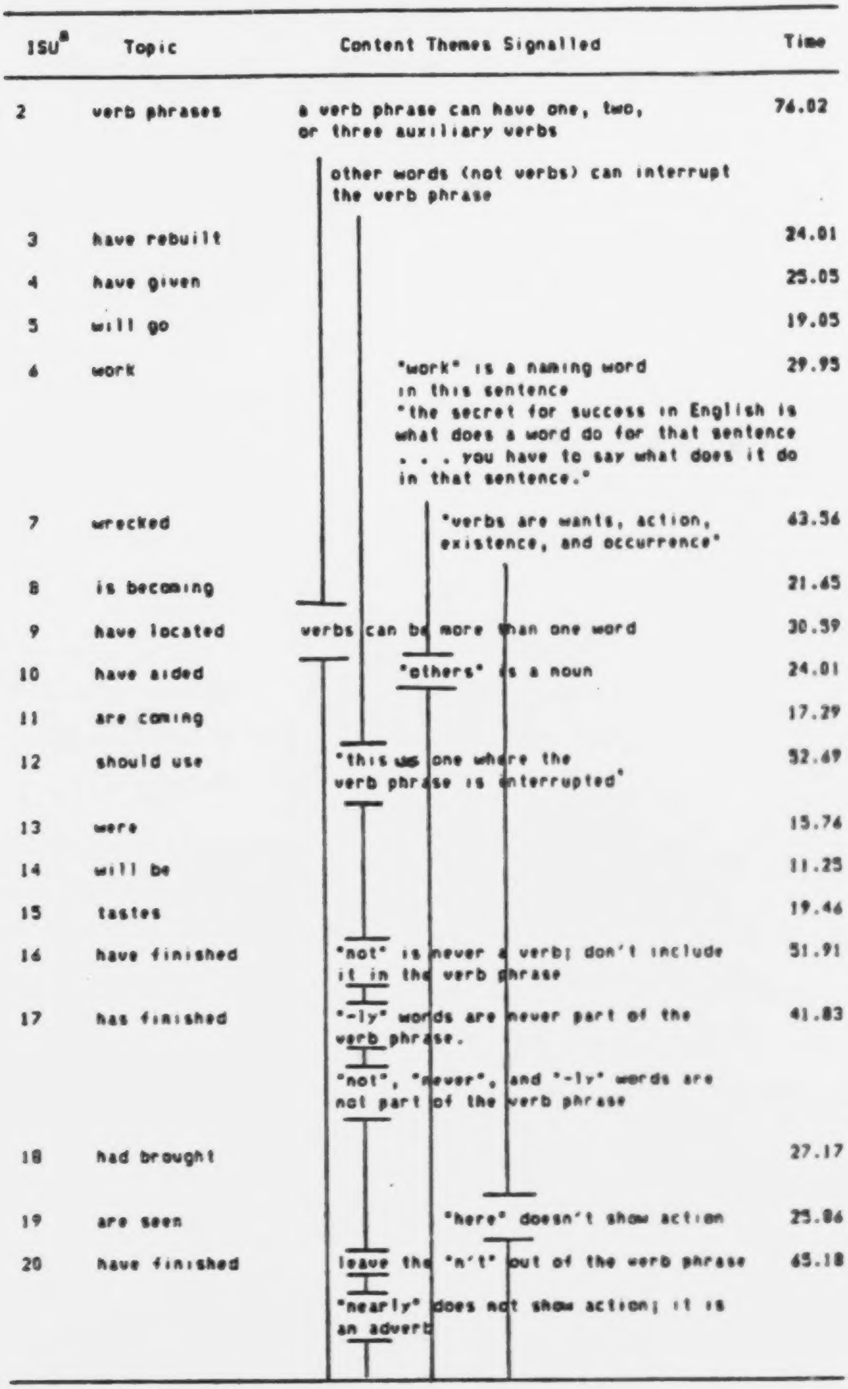
Phase 2 of Teacher B's lesson was selected to explore content distribution within lesson phase and within instructional sequence unit. Phase 1, described above, did not provide a good base for this examination since the academic task demand was largely embedded in the interactions between students and their test materials, and was therefore not visible through the verbal dialogue. Phase 2, in contrast, consisted of an oral review of "yesterday's" written exercise. It therefore incorporated dialogue not only about social and procedural expectations, but also about expectations for what to know and what to do in regard to the academic content. The task demand required students to raise a hand if they'd had a problem with the item number called out by the teacher. The teacher then called on a volunteering student to name the verb phrase, the main verb, and the auxiliary verb in the given sentence. If no students indicated a problem with a particular item number, the item was not covered in the review exercise.

A summary chart of the content themes signalled in this lesson phase is presented in Figure 5.6. As indicated, the ISU number, the topic, and the length (in seconds) of each sequence are summarized, as well as the distribution of any and all themes signalled in the unfolding conversation. In this phase, four themes were signalled: (a) a verb phrase can have one, two, or three words; (b) other words, not verbs, can interrupt the verb phrase; (c) "the secret for success in English is what does a word do for that sentence"; and (d) "verbs are wants, action, existence, and occurrence." The vertical line extending from each of these initially stated themes serves as an indicator that the signalled theme remains "in place" as the lesson continues through to its conclusion. These lines also serve as "historical markers" through which the evolution of the teacher's contribution to lesson structure can be traced. Additionally, repeated or re-stated signals are arranged in line with the initial statement, thus providing a relative estimate of the "saturation" of each theme over time. For instance, Teacher B re-introduces a major theme, "other words, not verbs, can interrupt the verb phrase", six times in this lesson phase by providing concrete examples, e.g. "'not' is never a verb.... -ly words are never part of the verb phrase," etc. In essence, this form of summary chart provides a means of visually representing the construction of a conceptual scaffold that gradually becomes available for student use in reading, interpreting, negotiating, and understanding the academic task demand. Through this phase of the analysis, it is clear that a structure was signalled and that a scaffold was under construction -- at least through the interactions between the teacher and each of the content topics introduced in phase 2. What remains for consideration is the extent to which academic themes were signalled and cycled through the three-way teacher-materials-student interactions.

Insert Figure 5.6 about here

In order to explore teacher-student-materials interactions in relation to theme development, the summary data were explored in search of ordinary or typical interaction patterns, and for comparative purposes, extra-ordinary or atypical interaction patterns. As depicted in Figure 5.6, instructional sequences varied considerably in length, but tended to be roughly 30 seconds or less, or 50 seconds or longer. By recourse to the original detailed map, representative interactions were selected and are presented in Figure 5.7. With slight deviations in other short ISUs, the typical pattern is evident in ISU #3. The pattern included designation of a student to respond, teacher recitation of the sentence, teacher prompting, in turn, for the verb phrase, the main verb, and the auxiliary verb, and finally, teacher re-statement of the verb phrase. As reference to Figure 5.6 confirms, there was no

Figure 5.6 Summary description of academic themes signalled, Teacher B, phase 2.



ISU[a]	Topic	Content Themes Signalled	Time
2	verb phrases	a verb phrase can have one, two, or three auxiliary verbs other words (not verbs) can interrupt the verb phrase	74.02
3	have rebuilt		24.01
4	have given		25.05
5	will go		19.05
6	work	"work" is a naming word in this sentence "the secret for success in English is what does a word do for that sentence . . . you have to say what does it do in that sentence."	29.95
7	wrecked	"verbs are wants, action, existence, and occurrence"	63.56
8	is becoming		21.65
9	have located	verbs can be more than one word	30.59
10	have aided	"others" is a noun	24.01
11	are coming		17.29
12	should use	"this ws one where the verb phrase is interrupted"	52.69
13	were		15.74
14	will be		11.25
15	tastes		19.46
16	have finished	"not" is never a verb; don't include it in the verb phrase	51.91
17	has finished	"-ly" words are never part of the verb phrase. "not", "never", and "-ly" words are not part of the verb phrase	41.83
18	had brought		27.17
19	are seen	"here" doesn't show action	25.86
20	have finished	leave the "n't" out of the verb phrase "nearly" does not show action; it is an adverb	65.18

[a] ISU: Instructional sequence unit.

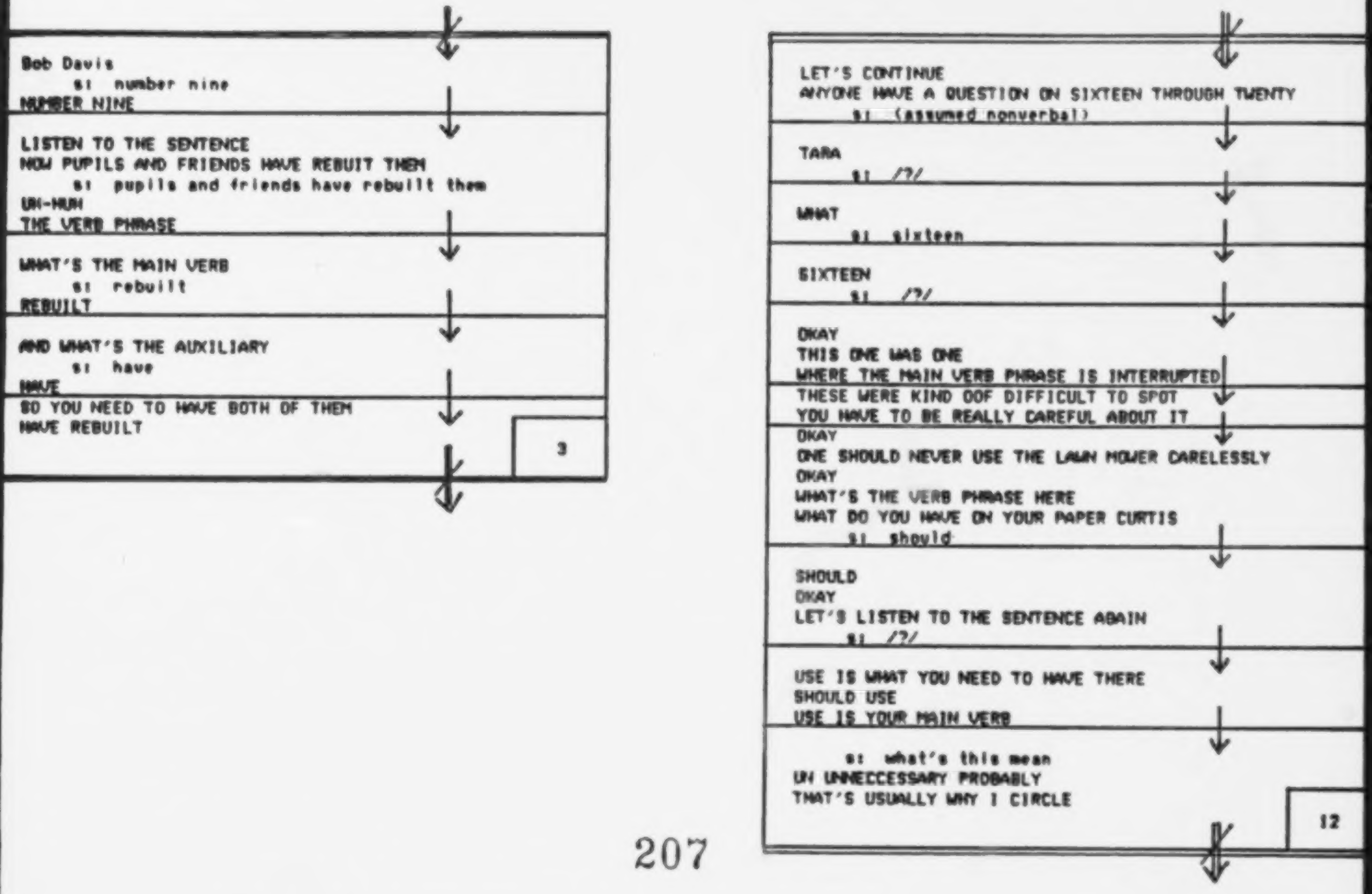
direct signal of a content theme provided by the teacher in ISU #3, nor in most of the short ISUs.

Insert Figure 5.7 about here

A representative content signal was identified in ISU #12. At mid-point in the sequence, the teacher states that this item is an example of the interruption of a verb phrase, and signals that these are "kind of difficult to spot". The signal is typically brief. Other factors contributing to the time extension include the student's request for inclusion of an item in the lesson (e.g., Tara's request, beginning of ISU #12), delayed or inaudible responses from students, and questions about the marking system (end of ISU #12). Explanations for the extended length of other long ISUs were similar.

What this analysis reveals is a limited three-way interaction pattern between teacher, student, and materials in service to thematic content signals. Students were called on to repsond and the teacher generally accepted or confirmed the response by moving on to the next question or the next item, thereby closing the sequence. This three-way pattern is limited in that designated students were not prompted to interactively justify or to comment on the reasoning that may have been guiding their choices of answers. Had such opportunities been extended, public demonstrations of student reasoning, as well as the teacher reasoning that was verbally signalled and "in place", would have been

Figure 5.7 Sample of ordinary and extended instructional sequences, Teacher B, phase 2.



Bob Davis
s: number nine
NUMBER NINE

LISTEN TO THE SENTENCE
NOW PUPILS AND FRIENDS HAVE REBUIT THEM
s: pupils and friends have rebuilt them
UH-HUH
THE VERB PHRASE

WHAT'S THE MAIN VERB
s: rebuilt
REBUILT

AND WHAT'S THE AUXILIARY
s: have
HAVE

SO YOU NEED TO HAVE BOTH OF THEM
HAVE REBUILT

3

LET'S CONTINUE
ANYONE HAVE A QUESTION ON SIXTEEN THROUGH TWENTY
s: (assumed nonverbal)

TARA
s: /?/

WHAT
s: sixteen

SIXTEEN
s: /?/

OKAY
THIS ONE WAS ONE
WHERE THE MAIN VERB PHRASE IS INTERRUPTED

THESE WERE KIND OOF DIFFICULT TO SPOT
YOU HAVE TO BE REALLY CAREFUL ABOUT IT

OKAY
ONE SHOULD NEVER USE THE LAWN MOWER CARELESSLY
OKAY
WHAT'S THE VERB PHRASE HERE
WHAT DO YOU HAVE ON YOUR PAPER CURTIS
s: should

SHOULD
OKAY
LET'S LISTEN TO THE SENTENCE AGAIN
s: /?/

USE IS WHAT YOU NEED TO HAVE THERE
SHOULD USE
USE IS YOUR MAIN VERB

s: what's this mean
UH UNNECCESSARY PROBABLY
THAT'S USUALLY WHY I CIRCLE

12

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available for all to witness. The conceptual scaffolding signalled by the teacher did provide a set of reasonable and practical strategies for students to use in successfully completing the academic tasks, but the operation of these strategies remained a private enterprise for each individual student. Opporunities for interactive, public demonstration of competence were limited to the report of simple factual knowledge: "What's the main verb."

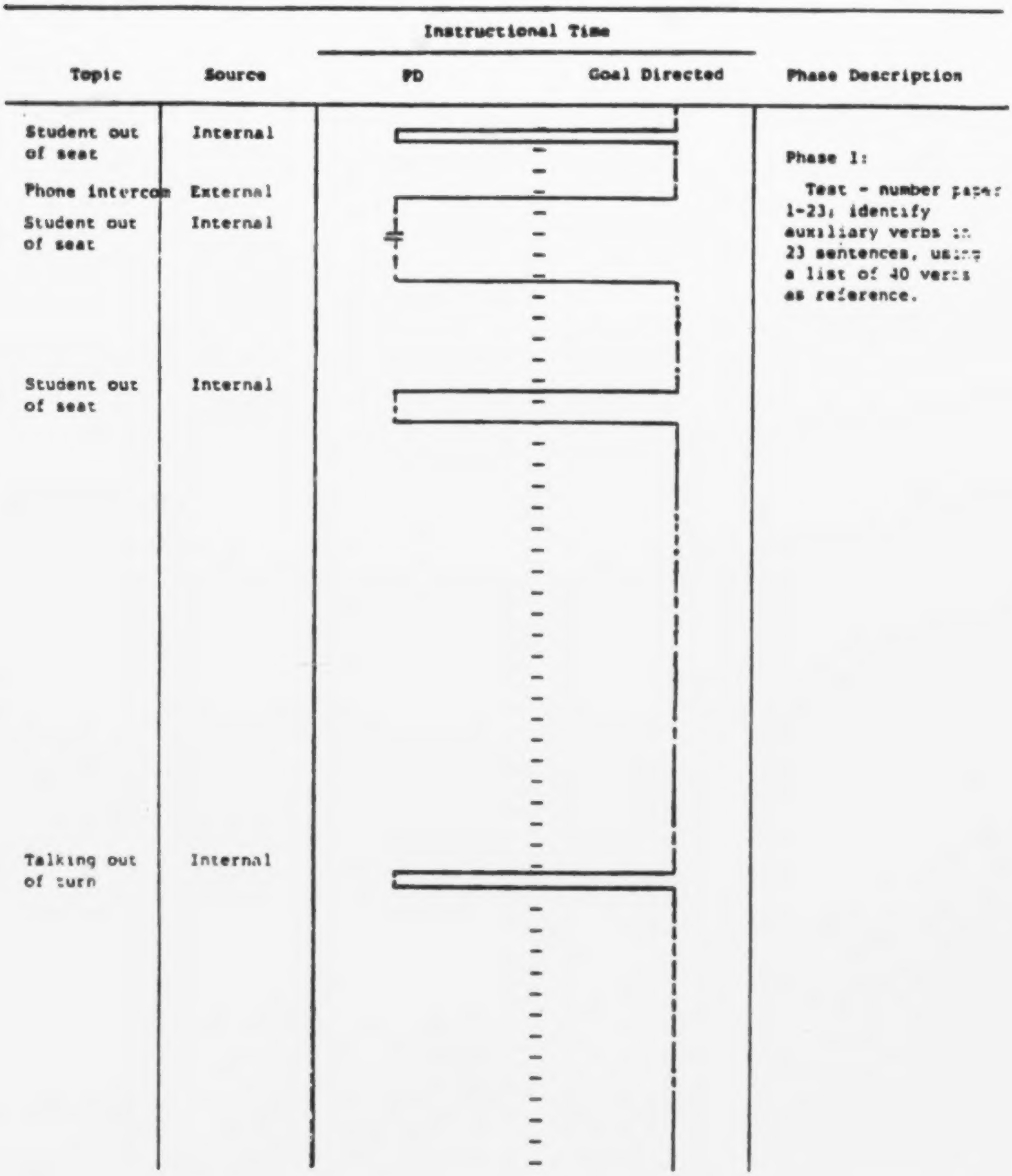
Goal-directedness

The summary chart illustrating the distribution of goal-directed and potentially divergent instruction for Teacher B's lesson is presented in Figure 5.8. As described earlier, potential divergences are designated when talk, actions, or events take place that interrupt or potentially interrupt the teacher's apparent instructional theme. On the chart, the center line is a "time line", each point marking a 7 second interval. The broken line to either side of center is an "instructional progression line", and by its placement, indicates that instruction is either goal directed or potentially divergent.

Insert Figure 5.8 about here

A quick glance at Figure 5.8 shows that in phase 1, the "test", students and teacher experience greater difficulty in consistently working toward a single instructional goal than in other phases in the lesson. Earlier in this analysis of Teacher B's lesson, the phase 1

Figure 5.8 Summary chart of potentially divergent (PD) and goal-directed instruction by time, Teacher B

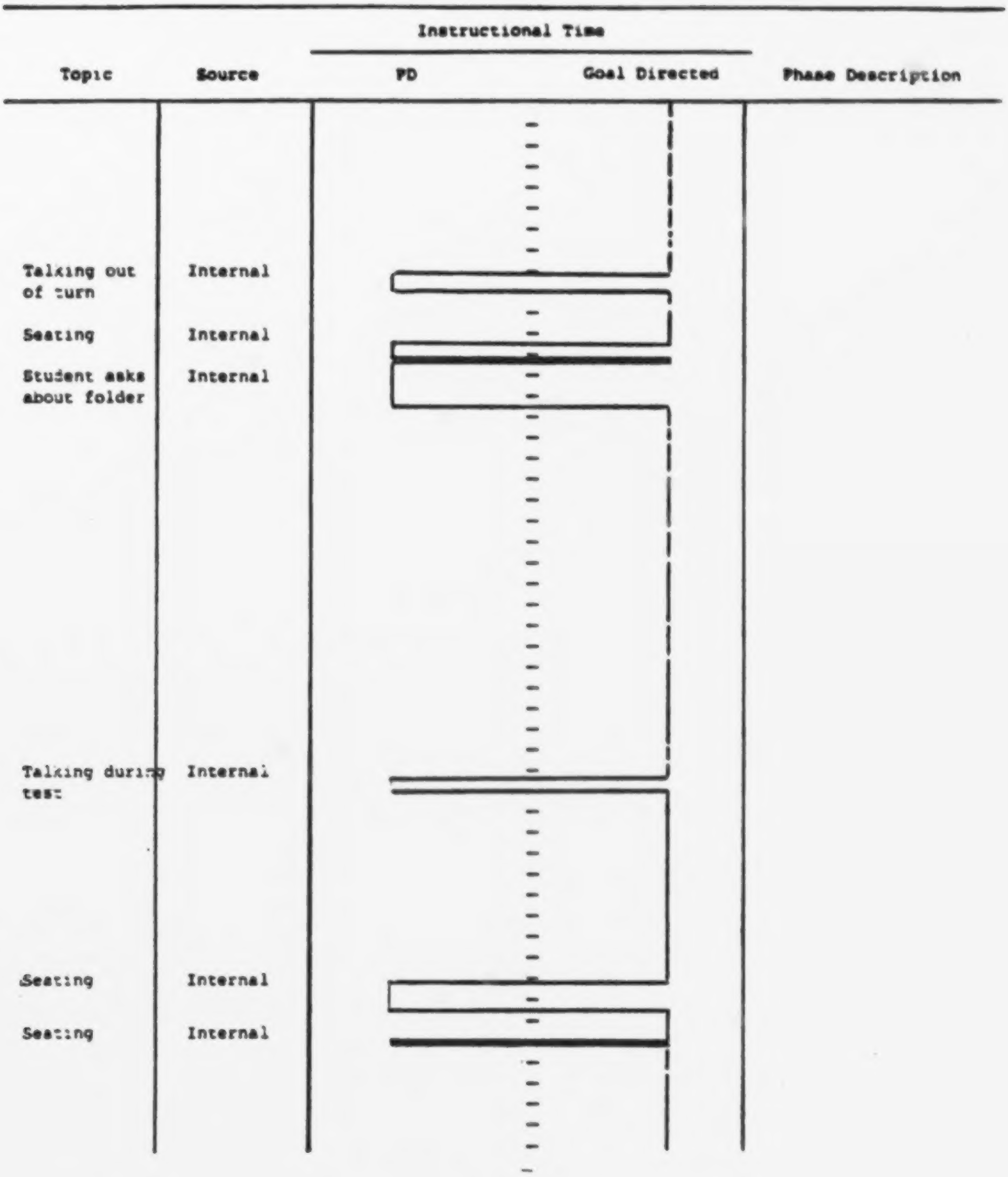


Phase 1:

Test - number paper 1-23; identify auxiliary verbs in 23 sentences, using a list of 40 verbs as reference.

(Figure continues)

Figure 5.8 (continued)


Instructional Time
Topic
Source
PD
Goal Directed
Phase Description
Talking out of turn
Internal
Seating
Internal
Student asks about folder
Internal
Talking during test
Internal
Seating
Internal
Seating
Internal

(Figure continues)

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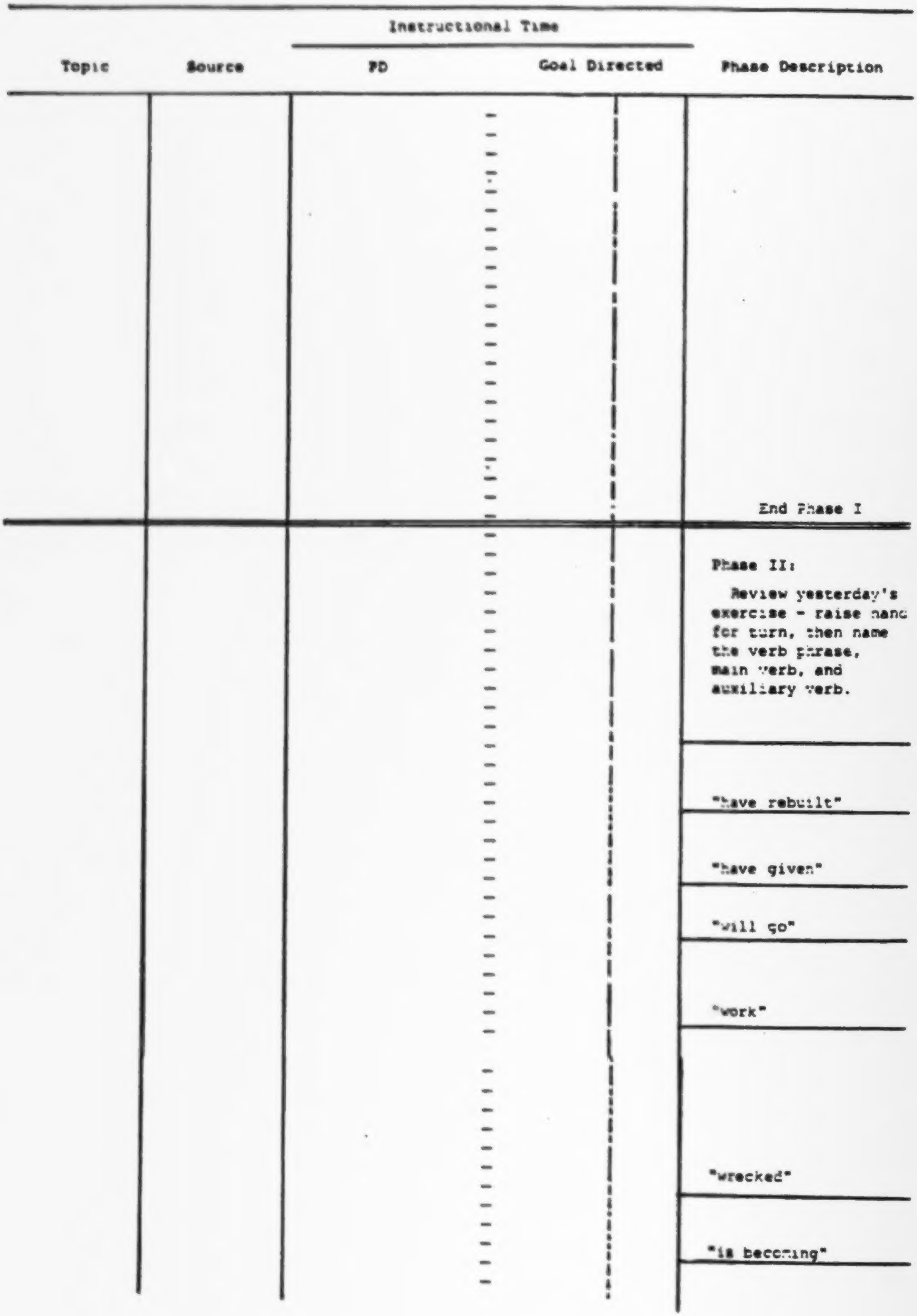
Figure 5.8 (continued)



(Figure continues)

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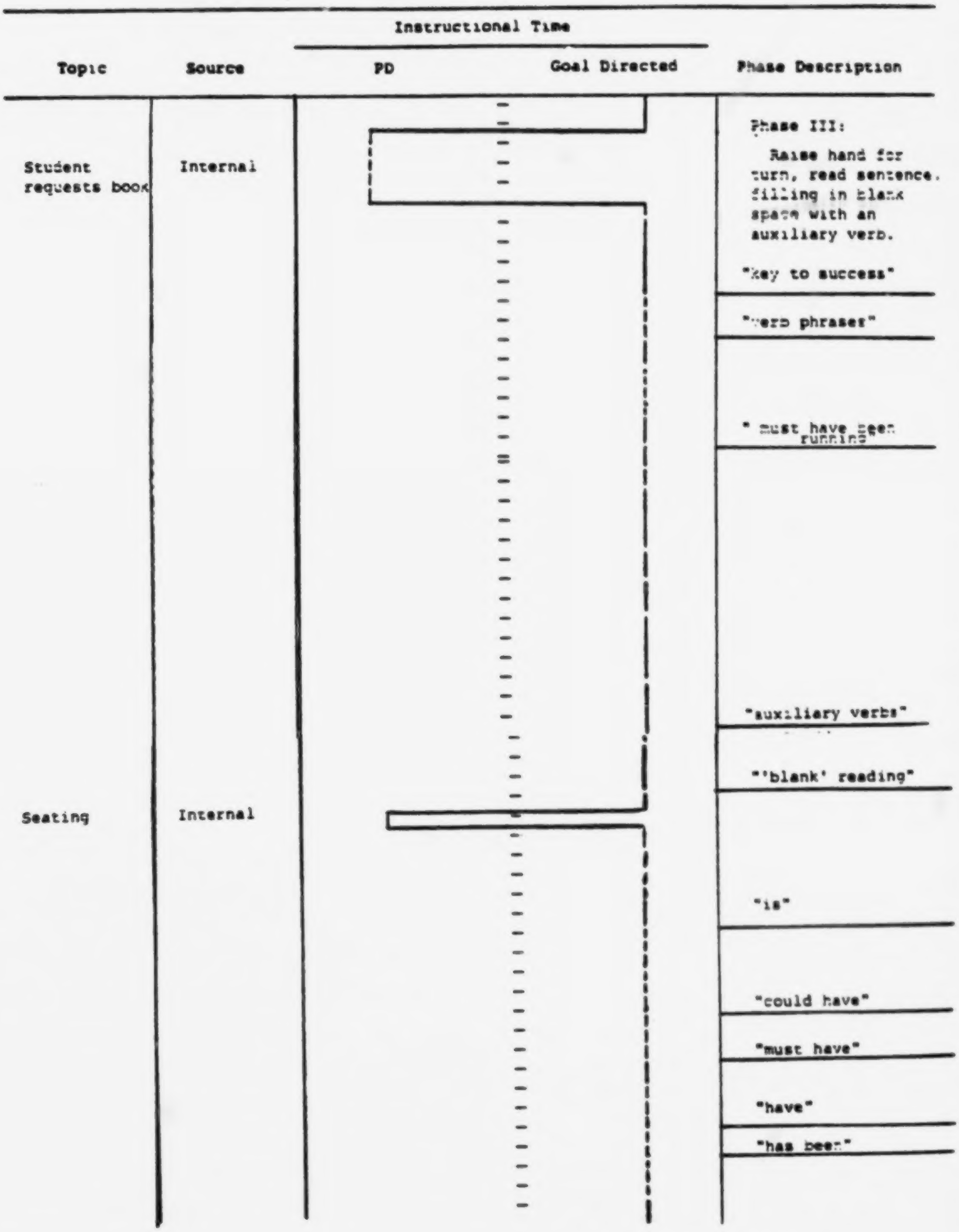
Figure 5.8 (continued)

Topic	Source	Instructional Time		Phase Description
		PD	Goal Directed	
				"have located"
				"have aided"
				"are coming"
				"should use"
				"were"
				"will be"
				"tastes"
				"have finished"
				"has finished"
				"had brought"
				"are seen"
				"have finished" End Phase II

(Figure continues)

Figure 5.8 (continued)


Instructional Time
Topic
Source
PD
Goal Directed
Phase Description
Student requests book
Internal
Seating
Internal
"key to success"
"verb phrases"
" must have been running"
"auxiliary verbs"
"'blank' reading"
"is"
"could have"
"must have"
"have"
"has been"

Phase III:

Raise hand for turn, read sentence, filling in blank space with an auxiliary verb.

(Figure continues)

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Figure 5.8 (continued)

Topic	Source	Instructional Time		Phase Description
		PD	Goal Directed	
				"had been"
				"should"
				"could have"
				"may" End Phase III
				Phase IV: Setting expectations for written exercise on auxiliary verbs.

/TAPE ENDS/

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"test" was described as a set of co-occurring, interlocking, and overlapping contexts. Furthermore, each context was described as entailing a unique system with specific, differing, and even conflicting rights and obligations for appropriate participation. Participation was fluid; individuals, select groups, and the collective group moved into, out of, and among these simultaneously on-going systems in a more or less constant and continuous fashion. Requirements for participation were signalled throughout, as reflected by the actions and reactions of the participants as they interacted with and built on their own messages and behaviors and those of other participants. Given this complex environment, the finding that potential divergences occurred in phase 1 is not surprising. The social and activity structures in the subsequent lesson phases, e.g. the review exercise and the oral exercise, were more constrained in that the system of stated and implied rules about who could talk to whom, when, where, about what, and in what ways appeared to apply in a more singular way to the collective group. Based on the infrequent occurrence of divergences in these subsequent phases, it is evident that structures for participating were established and adhered to as teacher and students worked together to meet the goals of the particular lesson phase.

The above contrast and discussion is not to imply that the phase 1 "test" represents an "out-of-control" lesson. Rather, it is simply more complex than other lesson phases. Closer examination of the frequency and duration of divergences reveals that although 11 occurred, all were attended to or resolved in less than 30 seconds. Many were short enough to remain potentially divergent; that is, these short encounters failed to mature into full-fledged divergences. When a potential divergence occurs, the teacher conceivably chooses from a wide range of options in responding. Students, similarly, select from a menu of potential options for responding, observing, and participating. The interest here is not so much in focusing on what the individuals do, but rather, how their behavioral choices function within the established contexts. In this lesson, the choices were such that participants were able to return to goal-directed instruction in fairly short order.

Finally, reference to Figure 5.8 confirms that spatial configurations, especially seating, constituted the clear majority of the teacher's responses to potential divergences. On the surface, it appears that rules about seating were not "in place". Recourse to the original map and the audio recording revealed, however, that many students were appropriately "out of seat" in phase 1: e.g., getting textbooks, retrieving and replacing their folders (both housed in a bookcase along the side wall of the classroom), turning in completed work (to the corner of the teacher's desk), etc. It may have been in fact that "out of seat" was not the divergent behavior, but rather, seating was the substance of the teacher's directive or the anticipated solution for quelling the divergent or potentially divergent behavior. One possible inference is that the teacher's motive was not to verbally point out, or to dwell on what was inappropriate, but simply to return to the instructional theme. Returning the divergent student to seat may have been a general solution to a host of inappropriate behaviors. This final observation remains an untested hypothesis, however, due to limitations inherent in the use of audio and not video recording.

Teacher C:

A Model of Effective Management and Less Effective Instruction

Teacher C was selected as a member of this sub-sample on the basis of her mid-level rank as a classroom manager, her non-exposure to the management training workshops prior to data collection, and her less effective student achievement ranking. Teacher C ranked among the highest of the control group teachers on the observers' ratings of classroom management variables. Her placement was above a natural break in the data, but her rank was not as high on the management dimension as the two teachers described above. In regard to student achievement, Teacher C's sixth period students demonstrated no movement between within-class achievement level groups during the course of the school year, thus casting her as a less effective instructor for these analyses. The class described here is a seventh grade English class. The lesson took place on a Thursday in the second week in November.

Lesson Structure

Summary description of the phase structure in this sixth period lesson is presented in Table 5.5. Part of the lesson was on spelling; a second part, on verbs. Phase 1 consisted of an oral spelling test. Students were required to listen to each word, to each word used in a sentence, and then to spell the word on paper, numbering 1-25. In phase 2, the teacher repeated each of the same spelling words, and then students were asked to pass their papers to the front. Phase 3 consisted of a recitation/review of a lesson on verbs that had taken place two days earlier. In phase 4, students and teacher worked through a discussion of verbs contained in their books. The students were required to listen and follow along in the book as the teacher read from and elaborated on the text materials. An oral recitation comprised phase 5. According to "practice one" in the workbook, students were required to give a group response of "yes" or "no" as the teacher recited pairs of two word sentences, each pair using a single verb (e.g. "He adds. They add."; the correct response is "yes", given in unison, indicating that "add" is a verb). The academic task in this phase involved application of the "'he-they-it' test", described in the workbook. In phase 6, the class worked from a list of fifteen sentences written on the chalkboard. Students were required to respond, when called on by the teacher, by naming the verb in the designated sentence. Finally, phase 7 was a written exercise taken from "practice two" in the workbook. Students were requied to identify and write the verb contained in each sentence, numbering their papers 1-20.

Insert Table 5.5 about here

Exploration of quantitative descriptors of lesson structure revealed a pattern of potential interest in the relationship between

Table 5.5.

Description of lesson phases by participation task, time, instructional sequence, and interaction unit, Teacher C.

Phase	Task	Length (Seconds)	ISU[a]			IU[b]			
			f	$\bar{X}$ length	SD	f	$\bar{X}$ length (seconds)	SD	$\bar{X}$ f / ISU
1	Spell each word as teacher reads; on paper numbered 1-25.	92.57	6	15.43	3.73	11	8.41	3.73	1.8
2	Check spelling of words as teacher repeats each.	154.81	26	5.95	2.08	30	5.17	2.24	1.2
3	Respond to teacher's question: "Can you tell me anything you remember about verbs?" (from Tuesday's lesson). Raise hand to answer.	218.75	2	109.38	55.44	37	5.96	7.62	-
4	Look on page 18. Listen as teacher reads from and elaborates on text material.	158.10	4	39.53	25.84	35	4.53	2.29	8.75
5	Give group response (yes or no) as teacher reads "He '(word)'; They '(word)'." from list in 'Practice One'.	268.67	25	10.75	15.11	72	3.79	1.71	2.88
6	When called on, read sentence from board and then say what the verb is in the sentence.	395.34	16	24.71	20.39	107	4.01	2.53	6.68
7	Number paper 1-20; list verbs in sentences in Practice II, p. 19; raise hand if you have a question.	212.18	1	(212.18)	-	25	7.11	4.85	(25)

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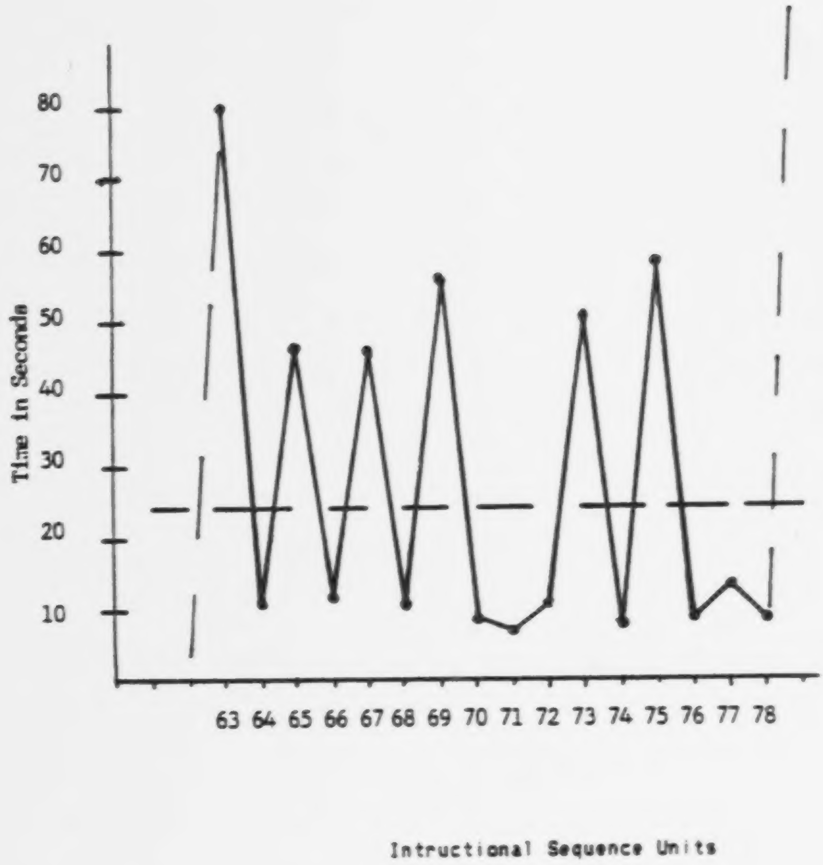
instructional sequences and interactions in phase 6 of this lesson. As described above, this lesson phase involved the class in working through 15 sentences listed on the chalk board. The objective was to name the verb in each sentence. The phase included 107 interaction units within 16 instructional sequences, a relatively high frequency in comparison to other lesson phases. With regard to the instructional sequences, Table 5.3 also reveals high variability in the length of instructional sequences ($\overline{X}$ = 24.71 seconds, standard deviation = 20.39). By plotting the distribution of instructional sequence units by time, as illustrated in Figure 5.9, a distinct pattern of alternating swings betweem short ISUs (∂ 10 seconds) and long ISUs (ISUs) 45 seconds) was identified. There was therefore reason to further explore phase 6 in search of explanations for what had contributed to this distinct and unique pattern.

Insert Figure 5.9 about here

Recourse to the detailed map of the instructional conversation permitted examination of consistency and variability. Representative short sequences were selected and are illustrated in Figure 5.10. An interaction pattern was identified, but comparisons across these shorter ISUs revealed a series of variations on a theme. Consistency in expectations for who was to talk, when, and about what was not high. That is, the teacher varied the order in which she designated the

Figure 5.9 Instructional sequence units by length of time, Teacher C, phase 6.



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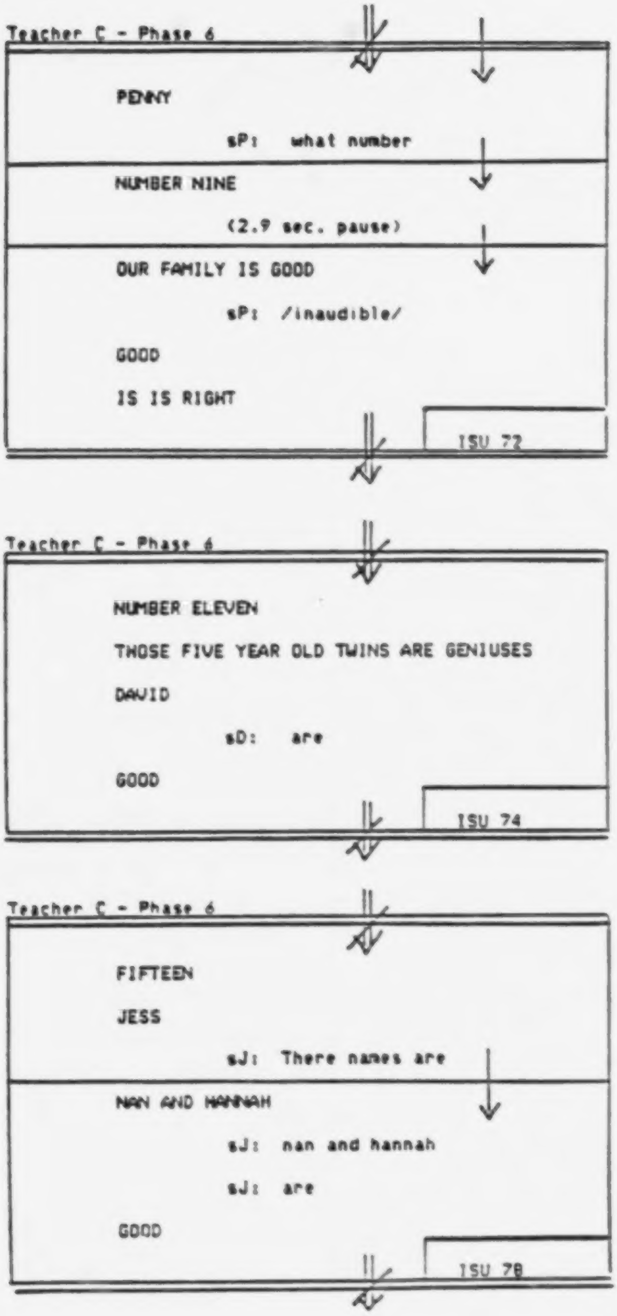
student, the item, and whether or not she recited the sentence. These deviations, however, did not contribute to the variability in lesson structure in any measurable way. What can be said is that one single factor contributed to the abbreviated length of these ISUs: the student's final response (e.g. the name of the verb) was accepted and the lesson proceeded to the next sentence on the board, thus closing the sequence. This single factor marked a consistent difference between the short sequences and all extended instructional sequences. Obviously, time differences carry little meaning in this analysis in and of themselves. What they do provide is a means of identifying and isolating reasons or explanations for the differences that then serve to highlight or foreground otherwise hidden features of the interactions. To this point in the analysis of Teacher C's lesson, the students' abilities, or inabilities, to provide the teacher with academically appropriate answers have been identified as a contributor to lesson structure. What has not been identified are the factors that served to either support or constrain the students' opportunities to give acceptable answers. A base for considering these matters was provided in the extended instructional sequences.

Insert Figure 5.10 about here

One extended ISU is presented in Figure 5.11 to demonstrate the contrast that resulted when the designated student failed to provide an

Figure 5.10 Representative instructional sequence units, Teacher C, phase 6.



Teacher C - Phase 6

PENNY

sP: what number

NUMBER NINE

(2.9 sec. pause)

OUR FAMILY IS GOOD

sP: /inaudible/

GOOD

IS IS RIGHT

ISU 72

Teacher C - Phase 6

NUMBER ELEVEN

THOSE FIVE YEAR OLD TWINS ARE GENIUSES

DAVID

sD: are

GOOD

ISU 74

Teacher C - Phase 6

FIFTEEN

JESS

sJ: There names are

NAN AND HANNAH

sJ: nan and hannah

sJ: are

GOOD

ISU 78

academically appropriate response. The pattern is complex. In this sample, it is obviously confounded by intermittent potential divergences from the teacher's stated directions for responding (arranged to the left of the column and segmented from the main thread of the interaction by the double, solid plus broken, lines). Not all extended ISUs contained potential divergences however. On closer examination, additional factors were recognized that had contributed to the students' confusion in identifying the verbs. In the sample illustrated in Figure 5.11, these additional factors are embedded within the central interaction between the teacher and the designated responder (in the right hand portion of the figure). Specifically, frame clashes were identified that could be traced for their origins to earlier phases in the lesson. In all, two problems for teacher and students were identified that served to constrain students' opportunities to demonstrate appropriate academic and social knowledge -- and these problems, in turn, influenced the evolving structure of the lesson. The first pertains to thematic development and the construction and negotiation of academic meanings. The second involves the establishment of norms for appropriate social participation. Continuing with the example of the extended ISU in phase 6 of Teacher C's lesson, both of these problems are considered separately in what follows.

Insert Figure 5.11 about here

Figure 5.11 Extended instructional sequence unit, Teacher C, phase 6.

```
664                                 BRIAN
665                                        s8:  spelling is our strong
                                                  suit
                                                (5.77 sec. pause)

666            s1:  I know

667                                        s8:  spelling
668                                 SPELLING
669                                        s :  /?/
670                                 LOOK AT SPELLING

671            S2:  I know
672         s3,s4:  is
673         s5,s6:  is

674                                 IS

675     OKAY WAIT JUST A MINUTE

676                                        s8:  they is
677                                             he is
678                                 HE IS
679                                        s8:  they is

680                                 NOPE
681                                 YOU WON'T GET TO SAY THEY IS ON
                                          A BE VERB
682                                 YOU HAVE TO CHANGE TO THEY ARE
683                                 HE IS
684                                 WILL BE FINE

685     s7: what about spelling

686                                 IT IS WOULD BE FINE

687     s7: what about spelling

688                                        s:  /?/
689                                 IS IT A THEY
690                                        s: (assumed nonverbal)
691                                 OKAY
692                                 YOU'LL HAVE TO REMEMBER THAT
693                                 ON YOUR BE VERBS

694     s7: spelling ain't right

695                                 YOU'LL HAVE TO CHANGE
696                                 THE WAS TO WERE

697     s7: is spelling right

698                                 AND THE IS TO ARE
699                                 SPELLING IS YOUR NAME THERE
700                                 IT'S YOUR SUBJECT
701                                 WHAT IS
702                                 SPELLING IS
703                                 SO IT'S YOUR SUBJECT THERE
704                                        s:  so-
```

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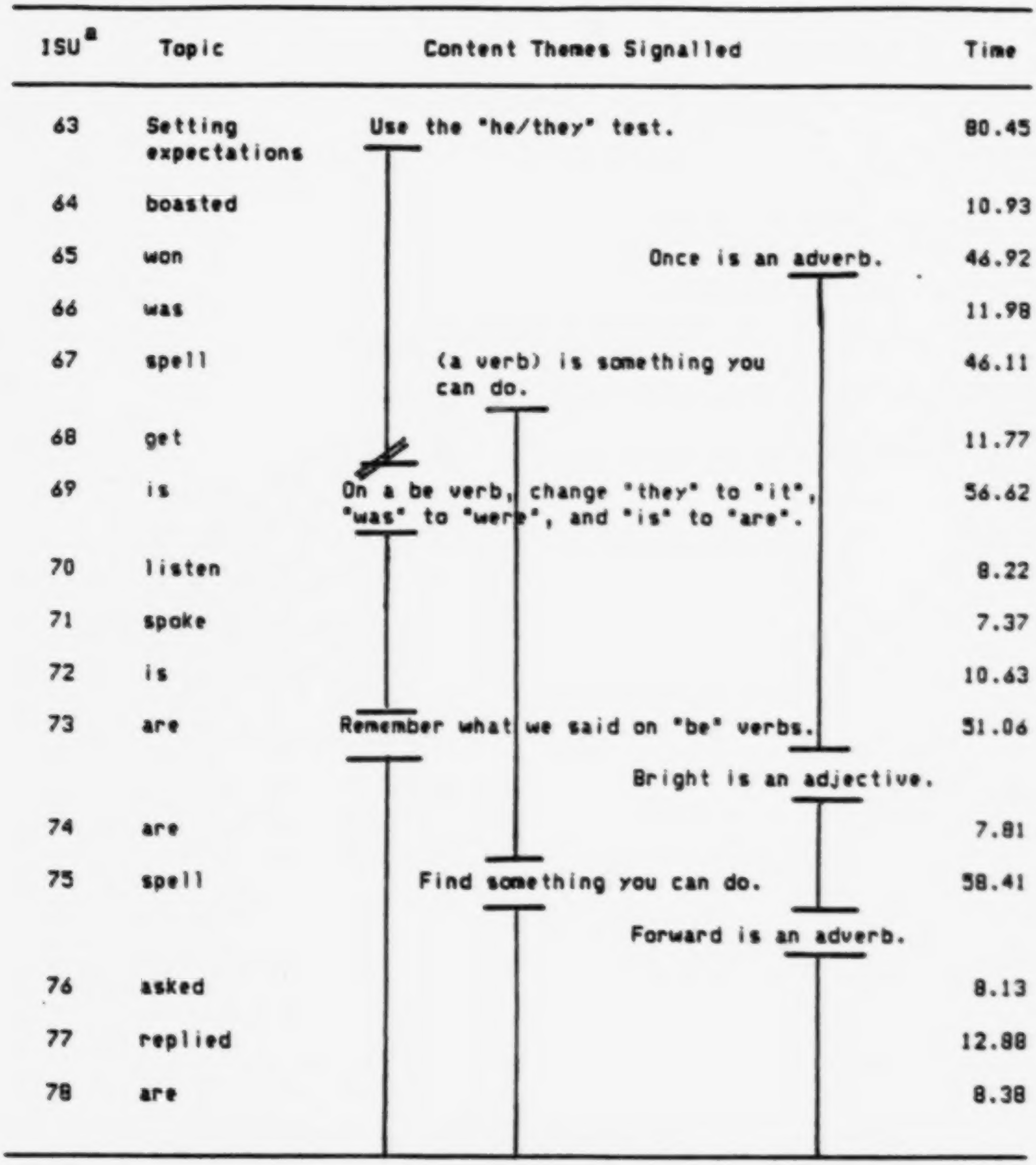
Thematic Development

The summary chart of the themes signalled in Teacher C's phase 6 lesson, as depicted in Figure 5.12, provides an organizing framework for this analysis as well as a base for tracing the sources of students' inabilities to give acceptable answers, as described above.
As indicated in the figure, three academic themes were repeatedly signalled in phase 6: (a) use the "he/they" test, (b) a verb is something you can do, and (c) some words are not verbs. The "'he/they' test", which had been demonstrated in the preceding lesson phase and in the introduction to this lesson phase, involved trying to place "he", and alternately, "they" in front of a selected word. If the resulting pairs of words made sense, or "worked" as sentences, then the chosen word was to be called a verb. If the resulting pairs of words did not make sense, the chosen word was not to be called a verb. Hence, the "'he/they' test". "Be" verbs such as "is" and "are" obviously represent exceptions to the general applicability of the "'he/they' test" -- just how obvious to the students in this sixth period class is a question offered for consideration in the present analysis.

Insert Figure 5.12 about here

In the sample instructional sequence illustrated in Figure 5.11 the given sentence was: "Spelling is our strong suit." (line 665). After the student gave an unacceptable response (line 667-670), divergent

Figure 5.12 Summary description of academic themes signalled, Teacher C, phase 6.



ISU[a]	Topic	Content Themes Signalled	Time
63	Setting expectations	Use the "he/they" test.	80.45
64	boasted		10.93
65	won	Once is an adverb.	46.92
66	was		11.98
67	spell	(a verb) is something you can do.	46.11
68	get		11.77
69	is	On a be verb, change "they" to "it", "was" to "were", and "is" to "are".	56.62
70	listen		8.22
71	spoke		7.37
72	is		10.63
73	are	Remember what we said on "be" verbs.	51.06
		Bright is an adjective.	
74	are		7.81
75	spell	Find something you can do.	58.41
		Forward is an adverb.	
76	asked		8.13
77	replied		12.88
78	are		8.38

[a] ISU: Instructional sequence unit.

Note: ⫽ indicates a break in signalled theme, e.g. in this case, an exception to the general applicability of the "he/they" test.

students and the teacher supplied the word "is" (lines 672-674). The designated student then verbally demonstrated the application of the "he/they" test to the word "is" (lines 676--679). Only at this point did the teacher then signal the exception to the "he/they" test for "be" verbs (lines 680-686). Reference to the summary chart in Figure 5.12 reveals (a) that this is the first public signal of the exception to the rule in this lesson phase, and second, that it represents a break in the designated and firmly established expectations for student performance and demonstration of academic knowledge. Paralinguistic cues that were carried in the student's response to the teacher's provision of "is" as the correct answer (lines 674-679) suggested that the student had silently tried the "he/they" test and had rejected "is" as a probable answer. A silent trial may in fact explain the delayed initial response (lines 665-667) and the student's ill-fated initial choice of the word "spelling." In addition, the immediately preceding signal given by the teacher (see ISU #67, Figure 5.12) was that a verb is "something you can do". The student may have been applying this second cue as well in his choice of the word "spelling." Whatever the case, to have supplied the word "is" in naming the verb (line 667) would have required that the student reject the teacher's signalled expectations for how to do the task and how to display academic competence.

What the above description suggests is that multiple frames were available in this academic task structure to guide student performance, and that discontinuities in these frames, i.e. frame clashes (Erickson & Mohatt, 1982; Florio & Shultz, 1979; Green, 1983; Mehan, 1979; Mehan, Cazden, Coles, Fisher & Maroules, 1976; Scollon & Scollon, 1984; Philips, 1972; Wallat & Green, 1982) contributed to the general confusion in the lesson. The teacher's signals about how to do the task provided at least a portion of the academic frame, and as described, there were conflicts in the evolving conceptual scaffold that these signals produced. Additionally, there was a historical frame brought forth from the preceding lesson phase in which students had orally and in unison practiced the "'he/they'" test. (There were no "be" verbs in this preceding lesson phase). What has not been described to this point are the inherent conflicts in the materials adopted for use in this lesson, i.e., the materials frame. Throughout phases 4, 5, and 7 in this lesson, teacher and students alike were guided by the structure of the workbook materials. The "'he/they' test" was described and illustrated, but the problematic application of the test to "be" verbs was not pointed out. As reference to the list of topics for phase 6 in Figure 5.12 confirms, 6 of the 15 correct responses were "be" verbs, thus introducing 6 local frames that were in direct conflict with the established historical frame of reference. The sentences on the chalkboard in phase 6 were not taken from the workbook. Students who were unable to give acceptable responses had not arrived at their answers in irrational or unreasoned ways. They had simply come to trust an established frame of reference that did not fit in the swiftly and subtly changing local contexts.

One additional feature of the academic task structure in this lesson phase deserves attention. Specifically, there were academic themes inherent in the task at hand that, although they appeared to be functional and operational for teacher and students alike, were not recognized and/or clearly signalled. This can be illustrated within ISU #69 (see Figure 5.11). When the teacher finally responds to the bidding student about "spelling" (line 699), she indicates that "spelling is your name there; it's your subject; what is; spelling is." In retrospect, the teacher seems to be applying a "rule" regarding the function of a word within the context of a sentence. Exploration of other ISUs indicated consistent, albeit tacit, application of this "rule" by the teacher. This is reflected in the second theme line (see Figure 5.12) about 'other' words: "once", "bright", and "forward", that the teacher labeled, respectively, as adverb, adjective, and adverb, according to their functions in the given sentence. In each case, students had attempted to apply the "'he/they' test" -- not so much to determine if the word was a verb, but rather *to force verb status on the word* and to make it *function* as verb. In the preceding lesson phase (phase 5, not illustrated here) single words rather than sentences had constituted the given information in each item. Some of these words were easily transformed into verbs, e.g., "who, he whos/they who" -- correct response: "no"; alternate response: "whooo, whoooo, an owl whooooos." At that point in phase 5, a classroom game had begun to emerge. In this earlier phase the students were, in effect, demonstrating that form and function do not always match -- that the meaning of any lexical item or message depends on how it's delivered and on what surrounds it at its point of use. This is an aspect of language that remained essentially unarticulated in any of the multiple frames that were operating in this lesson.

Goal-directedness

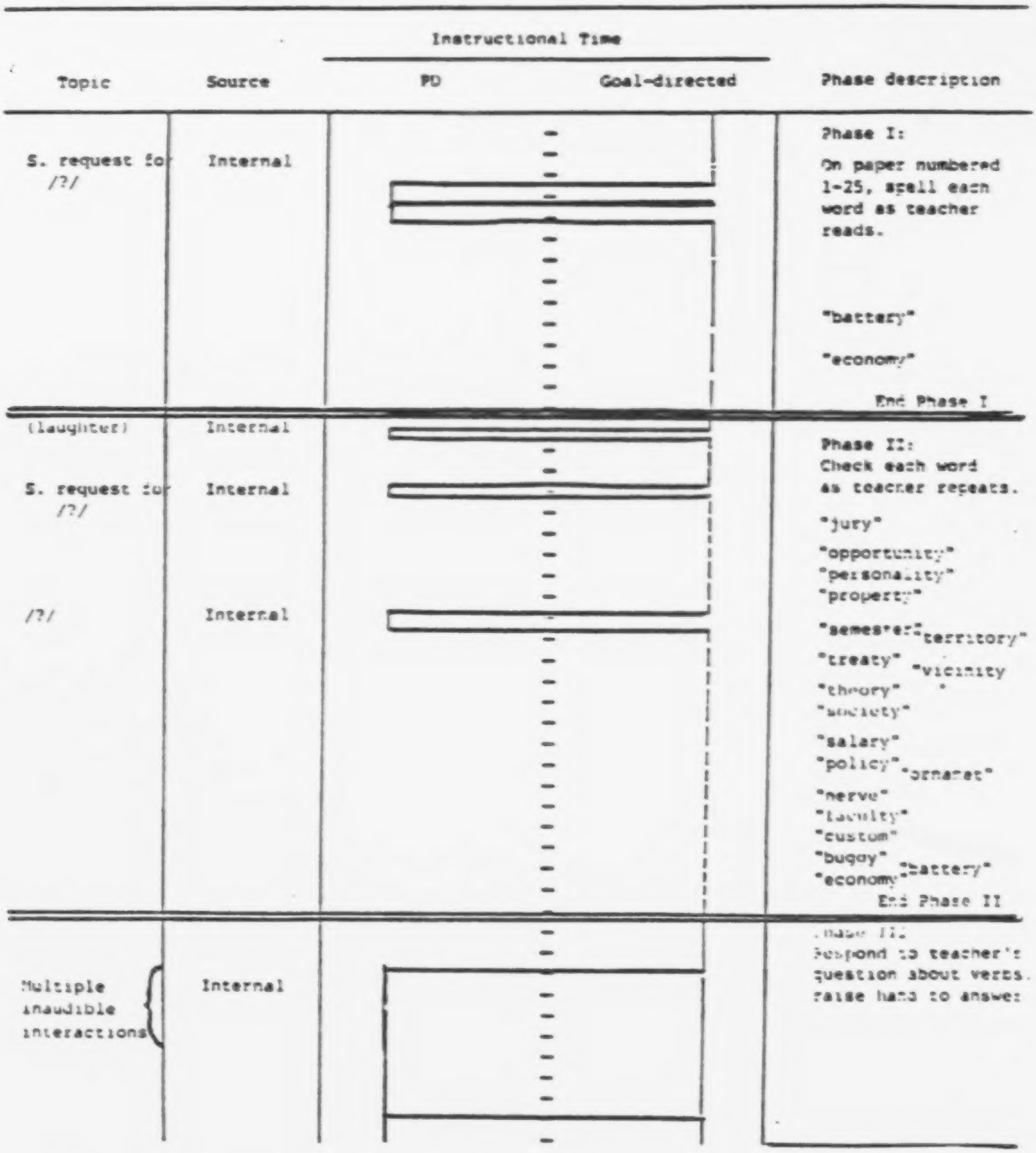
The summary chart of potential divergences in Teacher C's lesson is presented in Figure 5.13. Potential divergences from the teacher's stated instructional themes (as indicated in the area to the left of the center "time line") were frequent and many were extended in duration. As indicated in the column headed "topic" in Figure 5.13, talking out of turn was a problem for teacher and students in this classroom. Expectations for what was appropriate in terms of who could talk and when they could talk failed to get well established in most lesson phases. Furthermore, these expectations shifted dramatically between some phases. The shift between phases 5 and 6 provides an illustration. In phase 5, students were to say "yes" or "no" in unison in response to the teacher's recitation of a word, in order to indicate if the word was a verb. In this case a system for responding was quickly established, as indicated by the infrequent occurrence of divergences. As the phase progressed, however, students became highly proficient at the response pattern and gradually transformed it into an exercise in choral harmonies. The teacher did not signal this behavior as inappropriate, and it did not appear to deter lesson progresssion until near the end of the phase. It was in the later stages of this phase that the classroom game began to emerge, as described above. At the onset of phase 6, students demonstrated reluctance in abandoning the earlier social structure; some tried to continue the choral response pattern even after the teacher began designating single respondents. Questions were asked of the teacher about what the students were to do, as if each student needed a physically observable role, e.g. talking or writing. What had been acceptable social behavior in the preceding lesson phase was quite suddenly no longer appropriate: divergences resulted.

Insert Figure 5.13 about here

There were also multiple and conflicting participation demands within some lesson phases. At the end of phase 2, students had been asked to pass their spelling tests to the front of their row. At the same time, students in the front two seats in each row were directed to get the workbooks for their row from the bookshelves at the far side of the classroom. This latter signal by the teacher marked the beginning of phase 3. Although conclusive evidence was not available via the audio recording, students in the front of the room must have been faced with a task overload -- at least in comparison to students in the back of the room. What was evident is that this lesson phase did not get underway in a prompt fashion. Nonetheless, there were additional, confounding explanations for the delay.

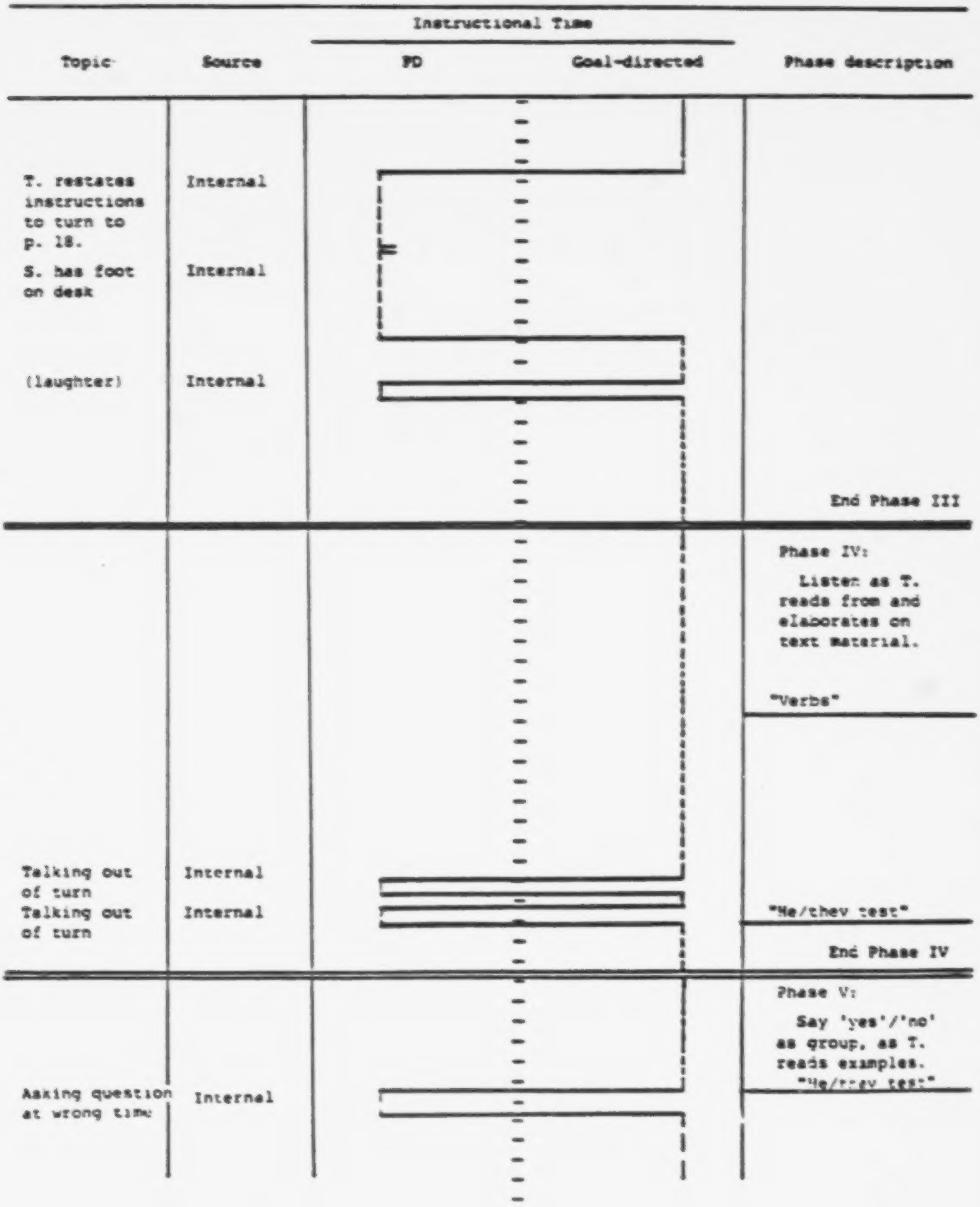
As students began to receive workbooks, the teacher directed that they turn to page 18. Many responded that there was no page 18. A subsequent visit in this classroom approximately two years later provided an opportunity to examine the workbooks. Page 17 was followed

Figure 5.13 Summary chart of potentially divergent (PD) and goal-directed instruction by time, Teacher C



(Figure continues)

Figure 5.13 (continued)


Instructional Time
Topic
Source
PD
Goal-directed
Phase description
T. restates instructions to turn to p. 18.
Internal
S. has foot on desk
Internal
(laughter)
Internal
End Phase III
Phase IV:
Listen as T. reads from and elaborates on text material.
"Verbs"
Talking out of turn
Internal
Talking out of turn
Internal
"He/they test"
End Phase IV
Phase V:
Say 'yes'/'no' as group, as T. reads examples.
"He/they test"
Asking question at wrong time
Internal

(Figure continues)

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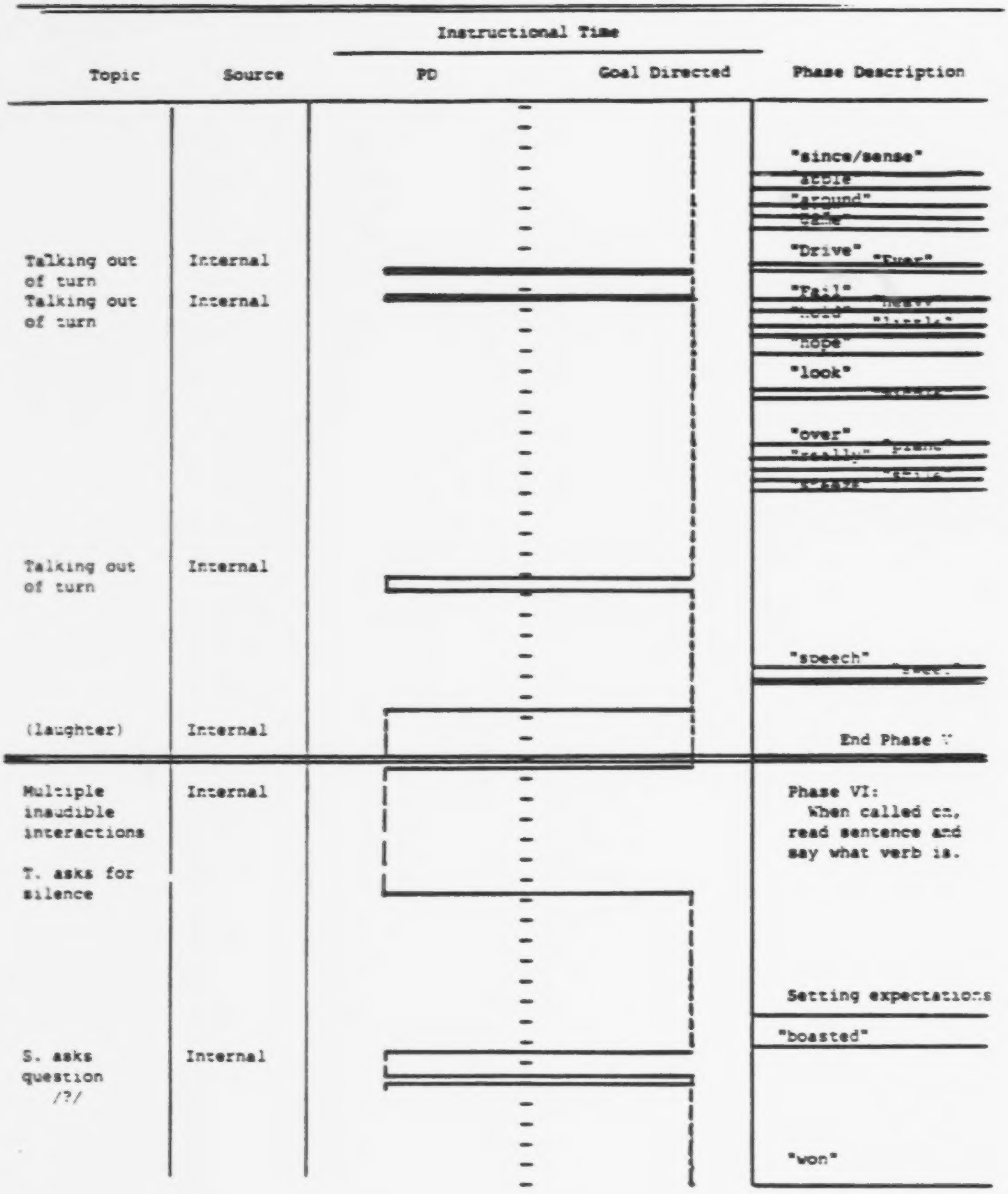
Figure 5.13 (continued)



(Figure continues)

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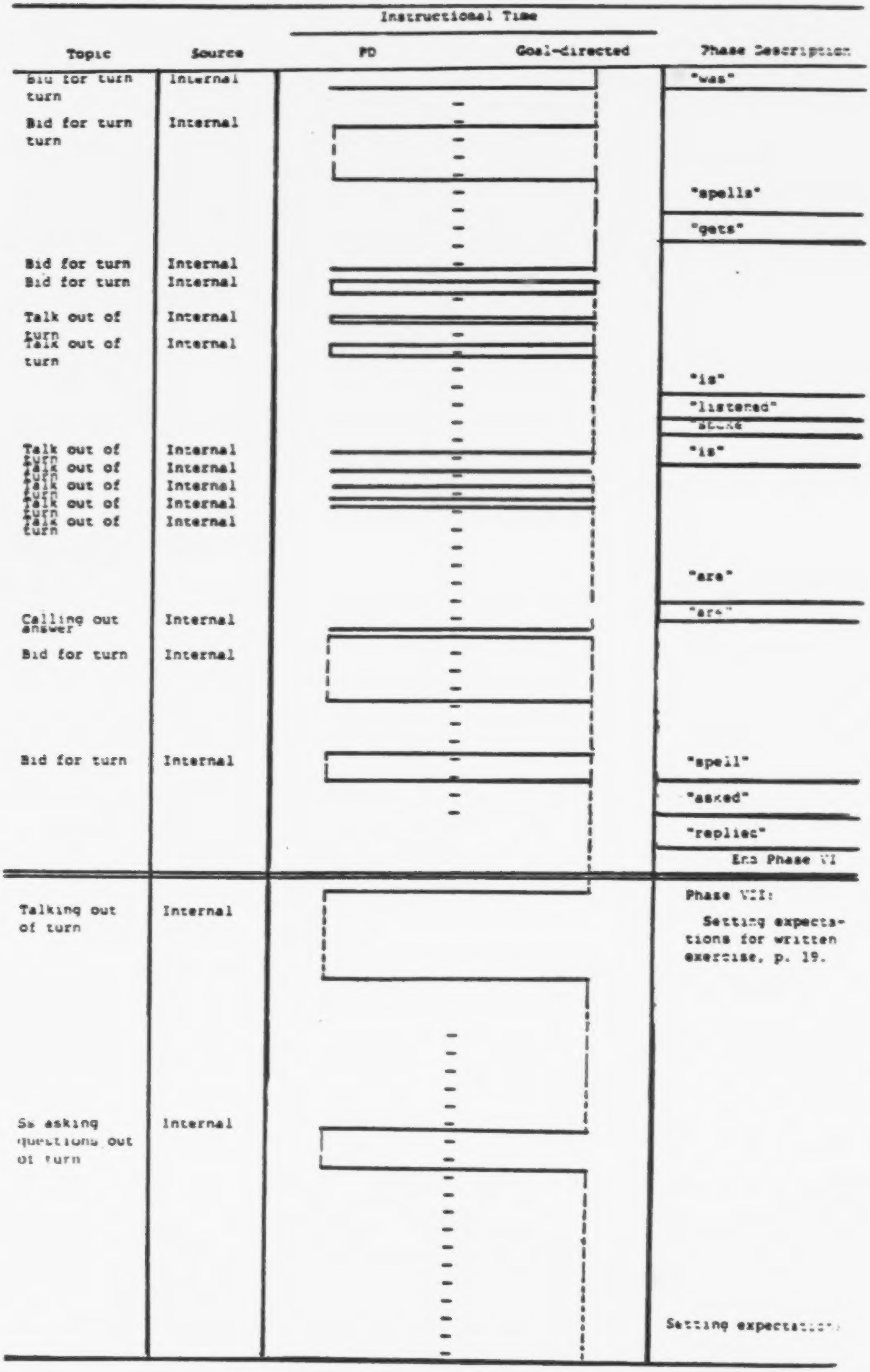
Figure 5.13 (continued)


Instructional Time
Topic
Source
PD
Goal-directed
Phase Description
Bid for turn turn
Internal
"was"
Bid for turn turn
Internal
"spells"
"gets"
Bid for turn
Internal
Bid for turn
Internal
Talk out of turn
Internal
Talk out of turn
Internal
"is"
"listened"
"spoke"
Talk out of turn
Internal
"is"
Talk out of turn
Internal
Talk out of turn
Internal
Talk out of turn
Internal
Talk out of turn
Internal
"are"
Calling out answer
Internal
"are"
Bid for turn
Internal
Bid for turn
Internal
"spell"
"asked"
"replied"
End Phase VI
Phase VII:
Setting expectations for written exercise, p. 19.
Talking out of turn
Internal
Ss asking questions out of turn
Internal
Setting expectations

/TAPE ENDS/

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by two un-numbered pages that were marked with shaded margins. These pages contained special practice exercises, but no page numbers. Students apparently expected workbook pages to be consecutively numbered, as demonstrated in the ensuing difficulty that several had in locating page 18. This is perhaps best described as a frame clash between personal frames that students brought to bear about how print materials are typically organized, and the conflicting arrangement brought forth in the materials themselves. In the meantime, the teacher had opened phase 3 by asking students to respond to a direct and emphatic question: "Can you tell me anything that you remember about verbs?" This opening, that otherwise might have been a successful launching of the new phase, was delivered at a mid-point in the continuing confusion over workbook pages. The opening was aborted, as the teacher continued with an explanation of how the workbook was organized. Again, the differential task assignments, the personal/materials frame clash, and the unfortunate timing in the opening question in phase 3 do not completely explain the delay.

As students continued in their search for page 18, conversing openly about it and failing to recognize the question about verbs, the teacher shifted into a private and personal conversation with one student. As indicated in the dialogue, the teacher's attention was attracted to this student because he had placed his leg on the desk. An excerpt is provided in Figure 5.14. Continuing through 7 private interactive contacts, a duration of 30 seconds, the divergence was resolved when the teacher asked the student if he could turn to page 18.

The teacher then re-opened the lesson phase. Parenthetically, page 18 was not referred to again until the opening of phase 4, and the student with the injured leg remained an active and highly vocal participant in all remaining lesson phases.

Insert Figure 5.14 about here

In summary, participants in this lesson experienced difficulty in maintaining goal-directed instruction. Expectations about who was to talk, when, where, about what, and for what purposes were either inconsistent or not firmly established. Beyond this fact, the events that took place could be roughly classified into three types. First, there are those which can be anticipated and planned for, e.g. transitional activities such as passing in papers and getting workbooks. These are events that recur frequently in classrooms and for which equitable assignment of task responsibilities might be planned, tested, revised, and/or established. A second type is a constructed event or activity, e.g. the choral harmonizing that evolved when students were to provide their responses in unison. The event was gradually constructed through the tacit, mutual cooperation among students within the peer interaction system as well as teacher and students in the instructional interaction system. What is required on the part of the teacher in response to constructed events is continual monitoring of what is occurring, and how events are being responded to -- in light of the

Figure 5.14 Teacher C's response to a potential divergence: A failure to place limits on the extent of the helping relationship.

Transcript Line	Potential Divergences from Theme	Thematically Tied Instructional Sequences	Contextualization Cues
111		OKAY	
112		REMEMBER TUESDAY	
113		ALL THE WAY BACK TO TUESDAY	
114		WE STARTED WORKING ON VERBS	
115		NOW THAT WAS OUR FIRST TIME ON VERBS	Emphasis on FIRST
116		CAN YOU TELL ME ANYTHING THAT YOU REMEMBER	Emphasis on ANYTHING
117		ABOUT VERBS	
118		ss: /?/	multiple voices
119		JUST RAISE YOUR HAND	
120		THINK JUST A MINUTE (1.59 sec. pause)	
121		sB:	assumed nonverbal
122		BRAD	
123		sB: I don't have page eighteen	
124		FLIP ON OVER	
125	s : go Brad		
126	s : (hands clapping)		
127	THERE'S A SECTION IN BETWEEN THERE		IMPATIENCE
128	s : /?/		
129	s : I don't have any page eighteen either		
130	s : I don't either		
131	OKAY		IMPATIENCE
132	LOOK		
133	IN YOUR WORKBOOK		
134	IT GOES TO PAGE		
135	SEVENTEEN		
136	THEN THERE'S A LITTLE REFERENCE SECTION		
137	THAT HAS GRAY BLOCKS		
138	FLIP ON OVER IT		
139	THEN YOU COME TO PAGE EIGHTEEN		

Figure continues

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Figure 5.14 (continued)

Transcript Line	Potential Divergences from Theme	Thematically Tied Instructional Sequences	Contextualization Cues
143	MIKE		PRIVATE, PERSONAL VOICE
144	THAT'S HOT FOR YOUR LEG		
145	wM : it hurts		
146	it hurts		
147	WHAT'S THE MATTER WITH IT		
148	wM : I don't know		
149	DO YOU THINK IT WOULD HELP IF YOU		
150	PUT IT UP THERE		
151	wM. might		
152	/ supposed to / elevate		
153	see I hit it		
154	/?/		
155	OKAY		
156	YOU PAY ATTENTION TO WHAT WE'RE DOING		
157	IT'S NOT THAT BAD		
158	OKAY		
161	wM:		assumed nonverbal
162	CAN YOU TURN TO PAGE EIGHTEEN		
163	wM: yes		
164	s : (laugh)		mocking
165		OKAY	RETURN TO PUBLIC VOICE
166		BACK TO MY ORIGINAL QUESTION	

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potential impact on interactions and on the forward progression of the lesson. Planning and decision making for constructed events are interactive as well as pre-active aspects of the teacher's role; these events and processes proceed on a minute-by-minute or second-by-second basis.

Many of the events that occurred in this lesson, however, may not have been easily predictable in their actual form, e.g., the elusive page 18, or the appearance of a student's leg on a desk. Like the more gradually constructed events, these occasions also require monitoring. The teacher is faced with simultaneous responsibilities for assessing the nature of any given event, meeting actual and/or perceived individual needs, and providing feedback to students, as well as maintaining the rhythm, flow, and direction of the on-going lesson. Additionally, one part of weighing the potential impact of lesson events on lesson direction involves "maintaining group." That is, the extent to which the teacher can realistically "slot out" of the collective, social interaction to attend to the perceived needs of a single student requires careful consideration. As in the case of the student's leg on the desk, Teacher C's demonstration of sensitivity and high regard for a single individual contributed, in part, to the demise of an instructionally appropriate group dynamic for all. Planning for unpredictable events is difficult at best since idiosyncratic features of the phenomena (e.g., the nature of the potential divergence, its source, the potential impact on lesson progression and the quality of interactions, etc.) tend to defy anticipation. Nonetheless, these events can be analyzed and understood through retrospective, post hoc examination. Consideration of unpredictable classroom events, and appropriate responses within a particular context, is therefore classified as a post-active, reflective phase of planning for teaching.

Teacher C was a member of the control group in the classroom management training study. She was therefore able to take part in the management workshops after these data were collected. Two years later, in an interview conducted in her classroom, Teacher C spontaneously volunteered that she had found information about transitions to be the most valuable part of the training. She described having students pass in papers and get workbooks -- one step at a time! A prescription about transitions is not intended here. Rather, Teacher C identified a recurrent event that had been problematic in this particular lesson some two years earlier. She reasoned that through the training she had had an opportunity to explore alternative management practices and to experiment with them in her classroom.

Teacher D:

A Model of Less Effective Management and Less Effective Instruction

Teacher D was selected as representative of less effective teaching on both the management and student achievement dimensions. As a member of the control group in the management training study, Teacher D ranked lowest in the entire sample of 16 teachers on observers' ratings of the classroom management variables (see Table 4.5, Chapter 4). The students in this eighth grade English class demonstrated no upward movement between within-class achievement level groups over the course of the school year. One student dropped from the high group to the middle level group (see Table 4.10, Chapter 4). The lesson described here, which took place during the second week in November, focused on spelling. As an established component of the eighth grade English curriculum in the district, spelling is also a part of the criterion-referenced test used for assessment of student achievement. Exploration of other lessons across the school year in Teacher D's other classes revealed consistency in teacher style and interaction patterns. This lesson is not atypical.

Lesson Structure

A summary description of lesson structure in this third period class is provided in Table 5.6. The first of the five lesson phases involved designating activities for three separate groups. Hence, although this analysis followed only the group of students who remained with the teacher from phase 2 on, three separate but overlapping phase structures were evolving simultaneously within the classroom. Two of the groups were to be involved with spelling tasks. Group 3, which appeared to involve only one student on this day, was assigned a journal writing activity. In the lesson that followed, a designated student could be periodically overheard in the background reading a list of spelling words to Group 2.

Insert Table 5.6 about here

At the outset of phase 2, students were directed to produce spelling books and a mimeographed homework exercise that had been assigned, and ostensibly completed, on the preceding day. Students were to check their own papers as the teacher distributed turn and the designated students reported their answers. Phase 3 focused on setting expectations for a spelling test that was to follow; a mimeographed test paper was distributed. In phase 4, the spelling test, students were to underline the correctly spelled word in each of 25 sets of words, working individually at their desks. Subsequently, in phase 5, students were to exchange papers and check for errors on the spelling test as the teacher recited and spelled each of the correct answers.

The homework check, phase 2, was selected for in-depth analysis of instructional sequencing and interactive contacts. In phases 1 and 3, each consisting of a single instructional sequence, the participation task demands did not include an academic task. That is, these lesson phases involved only setting expectations for the phase that was to follow. In phase 4, the spelling test, the academic task was embedded in the interactions between individual students and their test papers, and would therefore not be visible via the audio recording. Phase 2

Table 5.6

Description of lesson phases by participation task, time, instructional sequence, and interaction unit, Teacher D.

			ISU			IU			
Phase	Task	Length (Seconds	#	$\bar{X}$ length	SD	#	$\bar{X}$ length (seconds)	SD	X # / ISU
1	Listen to instructions about activities in today's lesson according to which group you are in (3 groups designated).	201.64	1	(201.64)	-	23	9.20	12.19	(23)
2	Group I: Pronounce and correctly spell each word when called on. (Words in homework exercise assigned yesterday; do the number of words indicated by teacher at designation of turn.)	616.06	41	15.82	25.42	116	6.46	5.28	2.82
3	Listen to instructions about procedures for spelling test.	209.15	1	(209.15)	-	26	8.33	9.80	(26)
4	Complete spelling test paper by underlining correctly spelled words.	388.30	1	(388.30)	-	20	21.83	41.39	(20)
5	Exchange papers with someone else and check for errors as teachers reads correct answers.	204.65	21	9.48	8.14	28	7.39	4.66	1.27

ISU: Instructional Sequence Unit
IU: Interaction Unit
PD: Potential Divergences

therefore provided a basis for examining the co-occurrence of academic and social participation structures.

An excerpt from phase 2, ISU #2, is illustrated in Figure 5.15 to reveal the way in which the participation demand for the homework checking activity was signalled. Students were first directed to get their homework out, and following a divergence (arranged to the left hand side of ISU #2), the teacher distributed turn and designated a number of responses for the student to give (this number subsequently ranged from 3 to 6). During this first response, a second student prompted that the word should be spelled as well as pronounced. When the teacher confirmed the prompt, the student repeated her first answer, pronouncing and then spelling each word. At this point, a response pattern was established that remained essentially consistent throughout the 40 words in the lesson phase.

Insert Figure 5.15 about here

The academic demand in the homework exercise had involved application of the "rules" of "assimilated spelling". The given information in each item included a two letter prefix and a base portion of a given word (e.g., af- lowance (sic); appropriate response: allowance, a l l o w a n c e). The "rules" provided students with a basis for knowing when a double consonant is required, when it is not, and whether or not a consonant should be changed in merging the two given parts.

Figure 5.15 Sample instructional sequence unit, Teacher D.

```
                    Teacher D - Phase II - ISU 2

              FIRST WE'RE GOING TO CHECK
              UH
              THE EXERCISES ON PAGE 46 FOR GROUP ONE SO OPEN YOUR
              GET YOUR
                  (1.5 SEC. LAPSE)
              HOMEWORK OUT GROUP ONE AND LET'S CHECK THOSE QUICKLY

   s1:  How many spelling words are there  (referring to test announced
                                              earlier for phase IV)
   s2:  /?/
   s3:  /?/
   s4:  Ms. Jones
   s5:  this is boring Ms. Jones
DID YOU ASK ME THAT
   s?:  huhn-uh
WHO ASKED ME THAT
   s5:  TONY
TONY YOU ASK ME THAT EVERYDAY
EVERYTIME WE TAKE A SPELLING TEST YOU ASK
   ME HOW MANY WORDS THERE ARE
   s :  well
WELL THAT MEANS THAT YOU HAVEN'T BEEN LISTENING
   s :  you just told us we was going to take one
        you didn't tell me how many words there was
   s5:  we went over it yesterday
YOU
EVERYDAY YOU ASK ME THE SAME THING
UH WAIT UNTIL THE TEST AND YOU'LL FIND OUT
CAUSE I TELL YOU EVERYTIME WE TAKE A SPELLING TEST
     HOW MANY WORDS THERE ARE
   ss:  /?/   (2.0 sec. lapse)

              OKAY ON PAGE 46 (1.0 sec. lapse
              UH (2.0 sec. lapse)
              UH (2.0 sec. lapse)
              KIM
                      sK:  yes ma'am
              GIVE US THE CORRECT ASSIMILATED SPELLING (2.0 sec.)
              FOR THE FIRST FIVE WORDS ON PAGE 46
                      sK:  uh the first word would be
                           a f f   I mean a l
                      s2:  allowance
                      sK:  allowance
                           the second word would be
              OKAY
              WOULD YOU SPELL THE ENTIRE WORD FOR US
                      sK:  allright
                           allowance
                           a l l o w a n c e
              THAT'S CORRECT                                      2
```

Note: Conversation that is divergent from the teacher's initial theme is set off to the left within the double (solid plus broken) lines.

Note: Names have been changed; punctuation has been deleted.

According to the book, assimilated spelling is a centuries-old, evolutionary process through which words have come to have their current, accepted spellings.

The pattern of instructional sequence distribution by time in this lesson phase revealed fairly high consistency following ISU #2. As the graph in Figure 5.16 demonstrates, most sequences ranged from less than 5 to 20 seconds in length. With few exceptions the variations in these abbreviated ISUs were explained by the designation of turn, and differences among students in the quickness of their repsonses. An illustration of one turn sequence is provided in ISUs #12-15, Figure 5.17.

Insert Figures 5.16 and 5.17 about here

With one exception, the only immediate factor contributing to extended length in the longer ISUs was evidence of divergences and potential divergences from theme. In the exceptional case, illustrated in Figure 5.18, confusion existed among teacher (lines 260-267) and students (lines 278-279; 281-294) alike about which item was to come next in the list of words. The source of this confusion was unclear to the data analyst until an opportunity became available to examine the book containing the exercise. The physical format of the textbook page was such that items were arranged in groups of 3-6, thus explaining the variable distribution of number of items to each student. Neither the

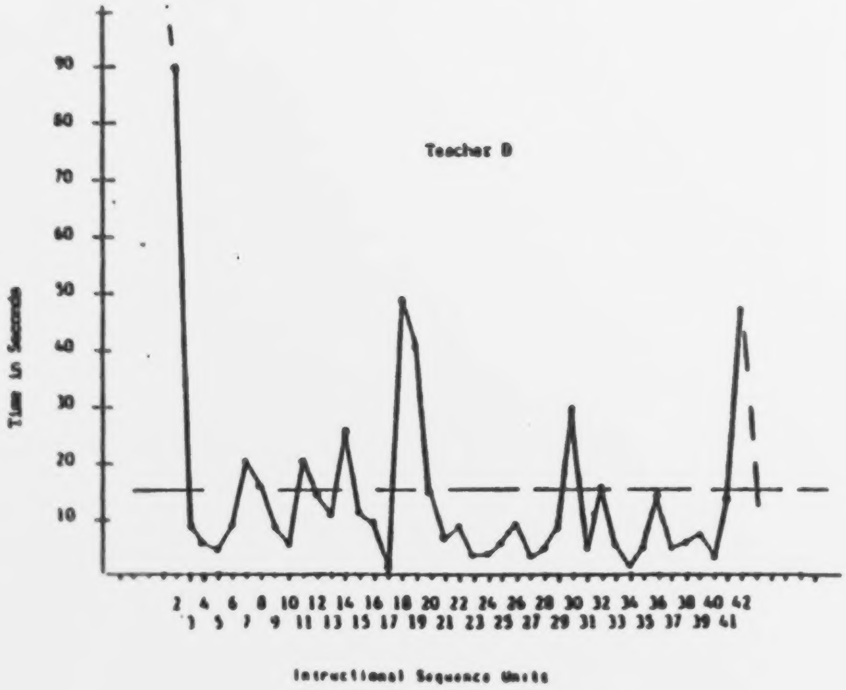
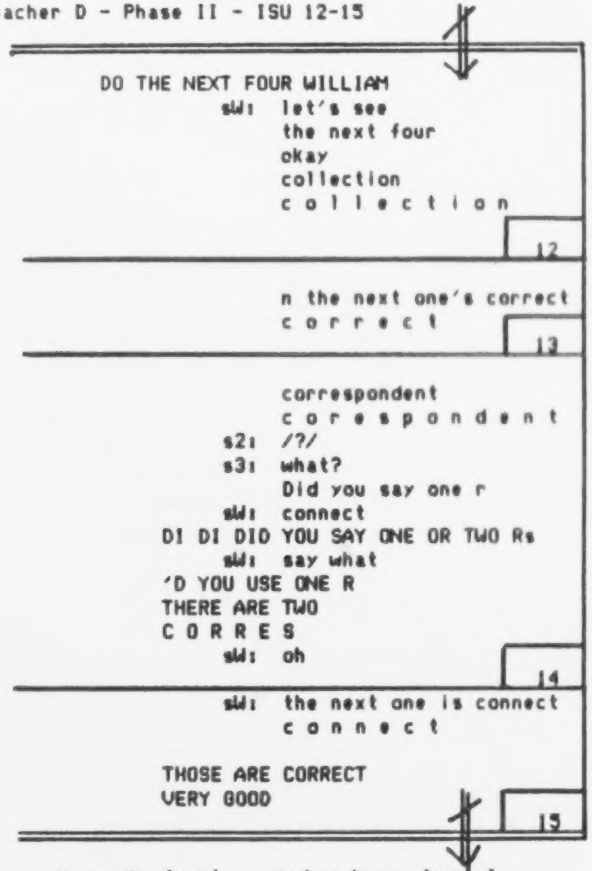


Figure 5.16 Instructional sequence units by time, Teacher D.

Teacher D - Phase II - ISU 12-15



DO THE NEXT FOUR WILLIAM
sW: let's see
the next four
okay
collection
collection
12

n the next one's correct
correct
13

correspondent
corespondent
s2: /?/
s3: what?
Did you say one r
sW: connect
DI DI DID YOU SAY ONE OR TWO Rs
sW: say what
'D YOU USE ONE R
THERE ARE TWO
CORRES
sW: oh
14

sW: the next one is connect
connect
THOSE ARE CORRECT
VERY GOOD
15

Note: Student's name has been changed.

Figure 5.17 Sample instructional sequence units, Teacher D.

items nor the groups were numbered in any way, and the groups of words were arranged on the page in a "polka-dot" fashion. It is possible that some students had superimposed a numbering system on their papers, as reflected in responses that number "nineteen", and alternately "twenty-nine", were to come next.

Insert Figure 5.18 about here

Thematic Development

The summary chart of content themes signalled during phase 2 of the spelling lesson is provided in Figure 5.19. There is the only one instance in this lesson phase in which the teacher "slotted out" of the established participation sequence in order to make a comment about the academic content of the lesson. A return to Figure 5.17, ISU# 14, reveals that the student had spelled the word incorrectly. A second student questioned the spelling, and the teacher then requested and subsequently provided clarification.

As described earlier, the academic demand in the homework exercise had involved application of a set of "rules" for assimilated spelling. Hence, there were content themes available within the academic task at hand that remained unsignalled. Throughout the lesson phase, there was no mention of the techniques or practice of "assimilated spelling." There was one mention of the term, as illustrated in the first distribution of turn in ISU #2 (see Figure 5.15).

Figure 5.18 Sample extended instructional sequence unit, Teacher D, phase 2.

Teacher D - Phase 2 - ISU #30 (partial segment) - 31

254		UH ELLEN
255		THE NEXT UH (1.6 sec. pause)
256	s5: she was absent Ms. /name/	
257		sE: I was absent /?/
258		EXCUSE ME I MEAN ALICE
259		ALICE
260		ALICE
261		sA: number /?/
262		UH ... NUMBER
263		sA: twenty-nine
264		WHAT NUMBER'S NUMBER NINETEEN
265		s : /?/
266		STARTING WITH WHICH ONE AFFORD
267		s : yep
268	s : /?/	
269	s : /?/ (16.9 sec. pause)	
270		DO AFFORD THROUGH DIVIDE (2.14 sec. pause)
271	s : /?/	
272		sA: diffu- (2.37 sec. paus
273		diffuse (.8 sec. pause)
274		diffuse d-
275		diffuse
276	s2: /?/	
277		sA: you want me to start at afford and go down
278	s1: where	
279	what	
280		YES START WITH AFFORD AND GO DOWN
281	s1: I mean	
282	where we at	
283	sA: nineteen	
284	WHERE YOU STOPPED	

(Figure continues)

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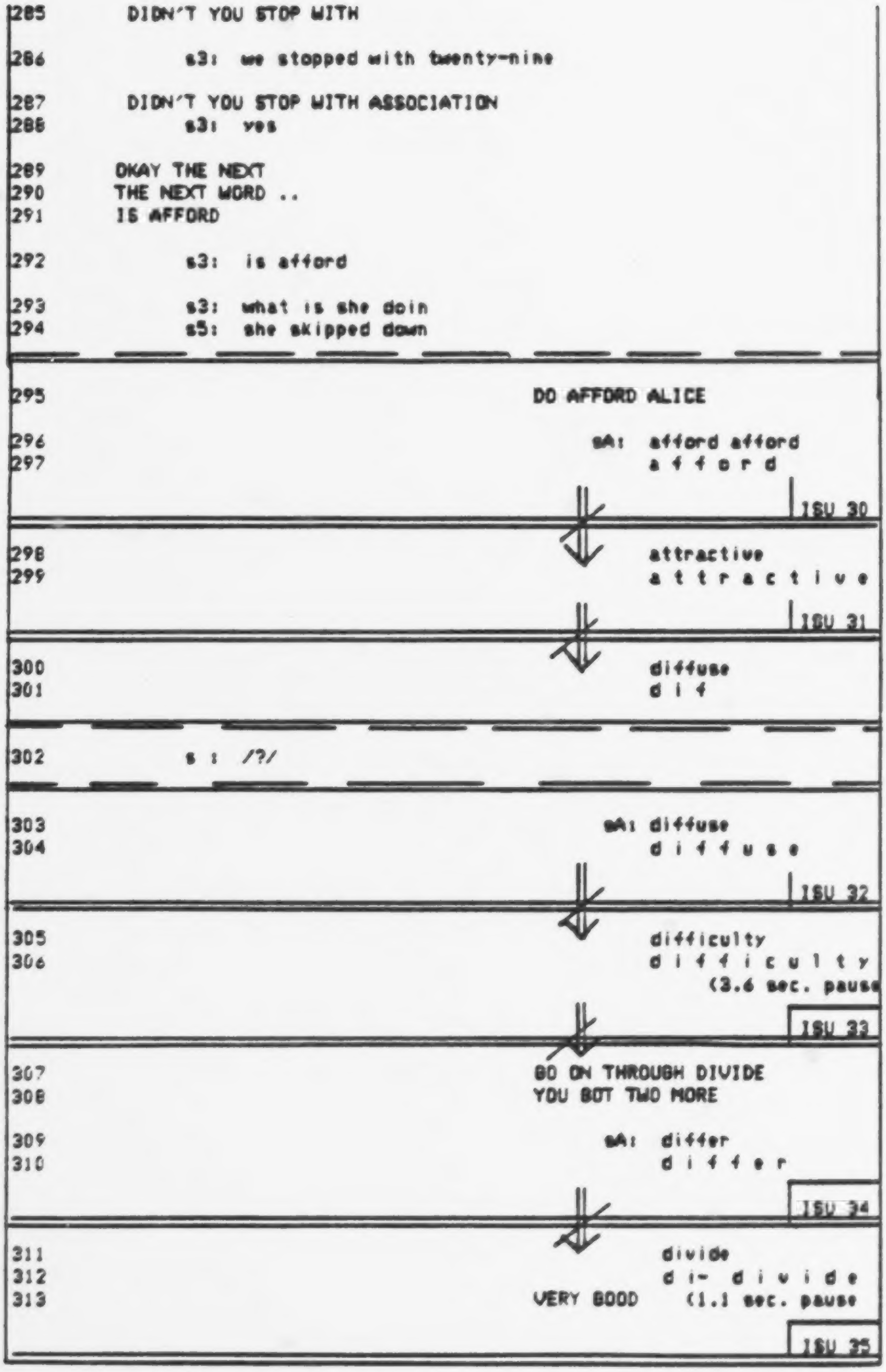
Figure 5.18 (continued)



285 DIDN'T YOU STOP WITH
286 s3: we stopped with twenty-nine
287 DIDN'T YOU STOP WITH ASSOCIATION
288 s3: yes
289 OKAY THE NEXT
290 THE NEXT WORD ..
291 IS AFFORD
292 s3: is afford
293 s3: what is she doin
294 s5: she skipped down
295 DO AFFORD ALICE
296 sA: afford afford
297 a f f o r d
298 attractive
299 a t t r a c t i v e
300 diffuse
301 d i f
302 s : /?/
303 sA: diffuse
304 d i f f u s e
305 difficulty
306 d i f f i c u l t y
(3.6 sec. pause
307 GO ON THROUGH DIVIDE
308 YOU GOT TWO MORE
309 sA: differ
310 d i f f e r
311 divide
312 d i- d i v i d e
313 VERY GOOD (1.1 sec. pause

Students' names have been changed.
Potential divergences are on the left; goal-directed instruction is on the right.
A horizontal solid plus broken line indicates boundary of

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Insert Figure 5.19 about here

Goal-directedness

The summary chart depicting divergences and potential divergences from the teacher's stated instructional goals is presented in Figure 5.20. An extreme contrast between lesson progression in the first three phases and the last two phases is evident. In phase 4, the test, multiple interactions took place. These consisted of inaudible peer conversations, sighs, student questions to the teacher, and intermittent questions from the teacher about who was not yet finished with the test. None of the student talk during the test was recorded as divergent or potentially divergent on the basis that the teacher did not signal that talk was inappropriate, nor was the emergent student talk negatively sanctioned in any way. Phase 5, in contrast, contained a relative absence of student talk. Students had exchanged papers to check the test, and they listened as the teacher recited and spelled each word in a script-like fashion.

Insert Figure 5.20 about here

Figure 5.19 Summary description of academic themes signalled, Teacher D, phase 2.

ISU[a]	Topic	Content Themes Signalled	Time
2	allowance		89.76
3	application		9.47
4	accurate		6.55
5	affair		4.85
6	announce		8.23
7	arrest		20.94
8	attention		16.65
9	acquaint		36.49
10	affectionate		5.50
11	accident		20.70
12	collection		14.10
13	correct		10.39
14	correspondent	There are two Rs (in correspondent)	26.37
15	connect		11.76
16	effort		9.58
17	effect		2.82
18	eclipse		49.34
19	offense		41.22
20	occasionally		15.70

(Figure continues)

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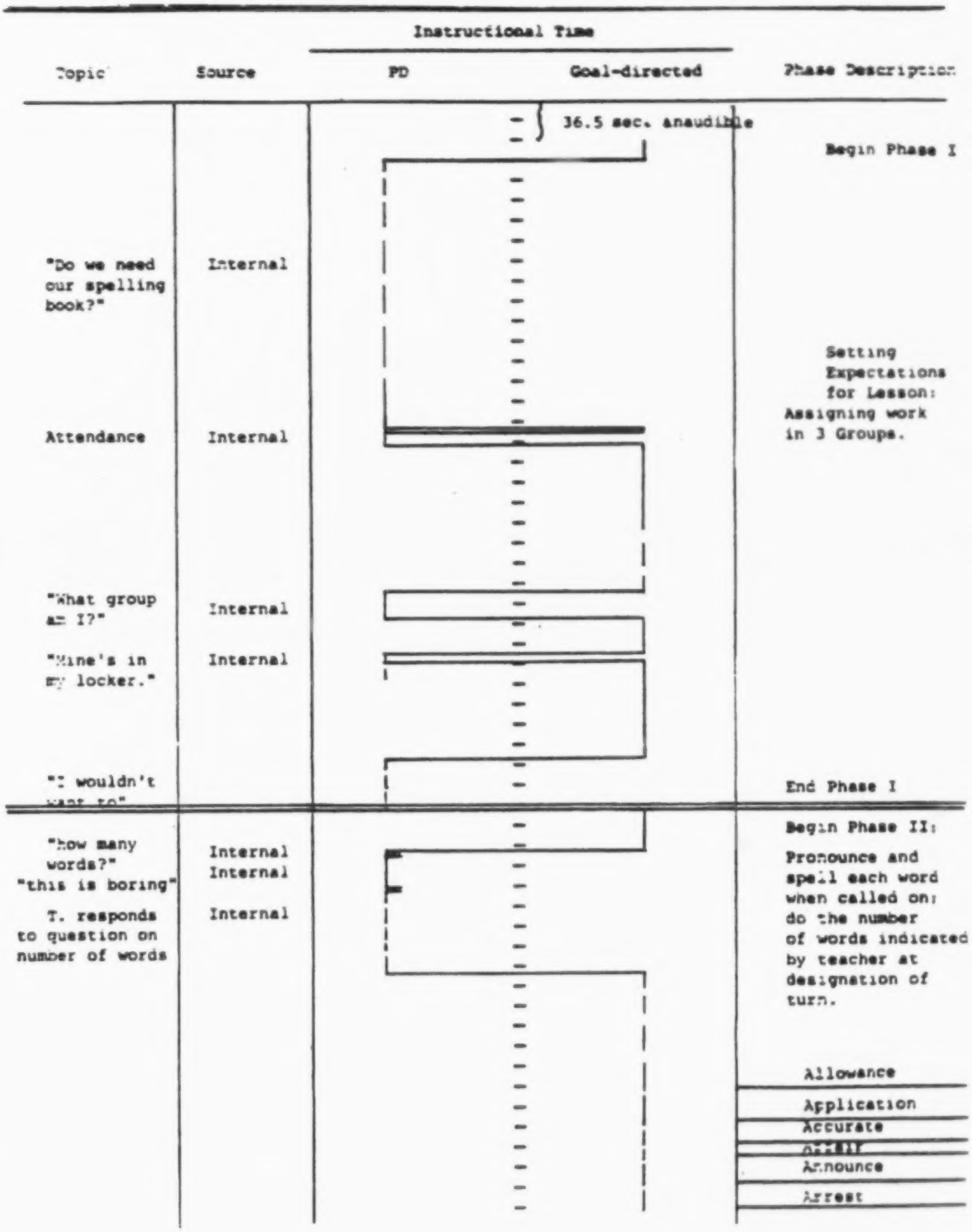
Figure 5.19 (continued)

ISU[a]	Topic	Content Themes Signalled	Time
21	/?/		7.00
22	attend		8.62
23	assure		3.43
24	assistant		4.07
25	arrivaal		6.50
26	attempt		9.83
27	appear		3.54
28	assume		5.07
29	association		8.77
30	afford		137.73
31	attractive		5.25
32	diffuse		17.56
33	difficulty		7.99
34	differ		4.99
35	divide		5.16
36	impression		14.97
37	irrigation		5.13
38	illegal		7.40
39	/?/[b]		7.53
40	succeed		3.25
41	sufficient		16.58
42	Passing in papers		47.30

[a] ISU: Instructional sequence unit.

[b] /?/: inaudible (In both cases, teacher signalled that student's response was correct).

Figure 5.20 Summary chart of potentially divergent (PD) and goal-directed instruction by time, Teacher D.



(Figure continues)

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Figure 5.20 (continued)

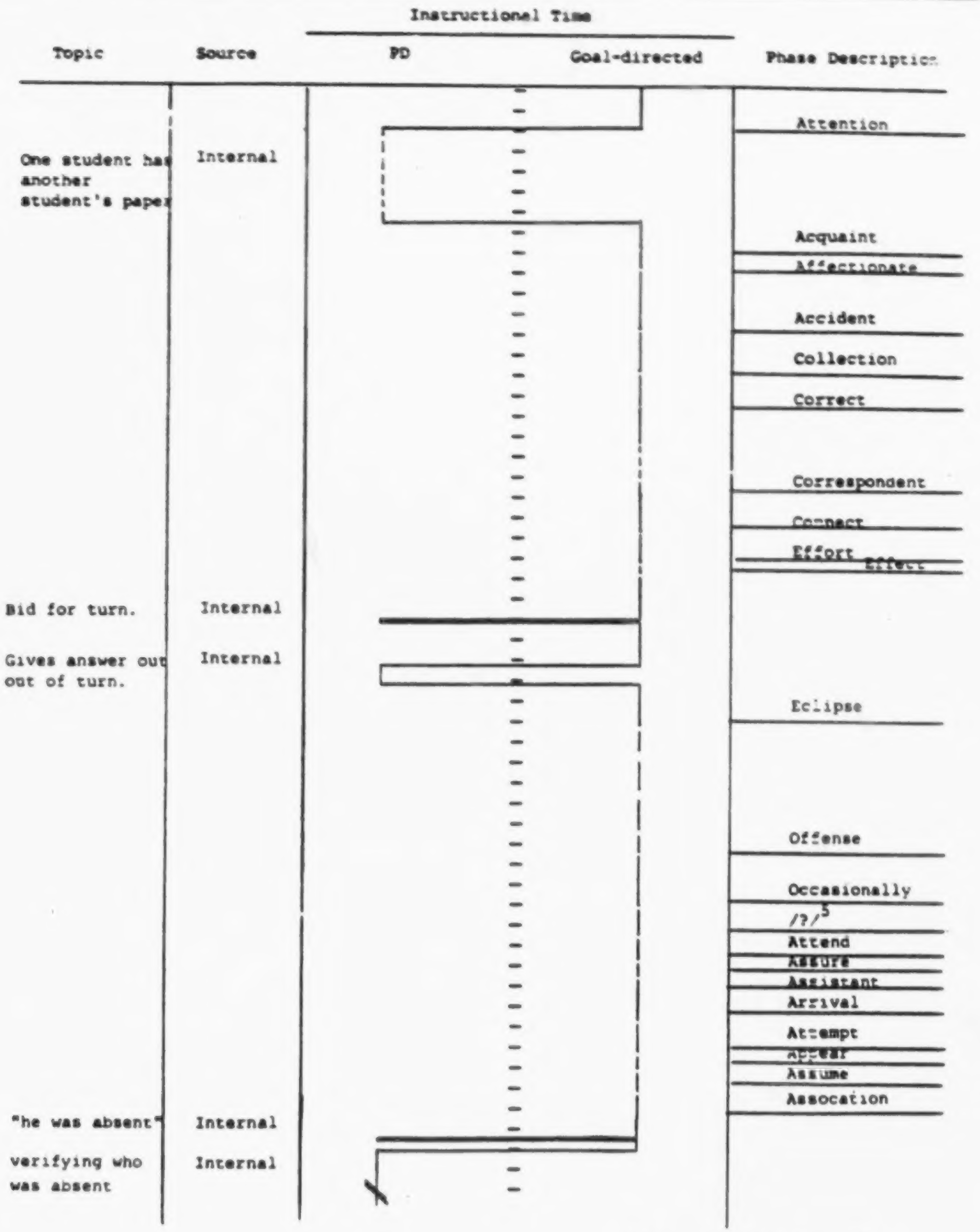

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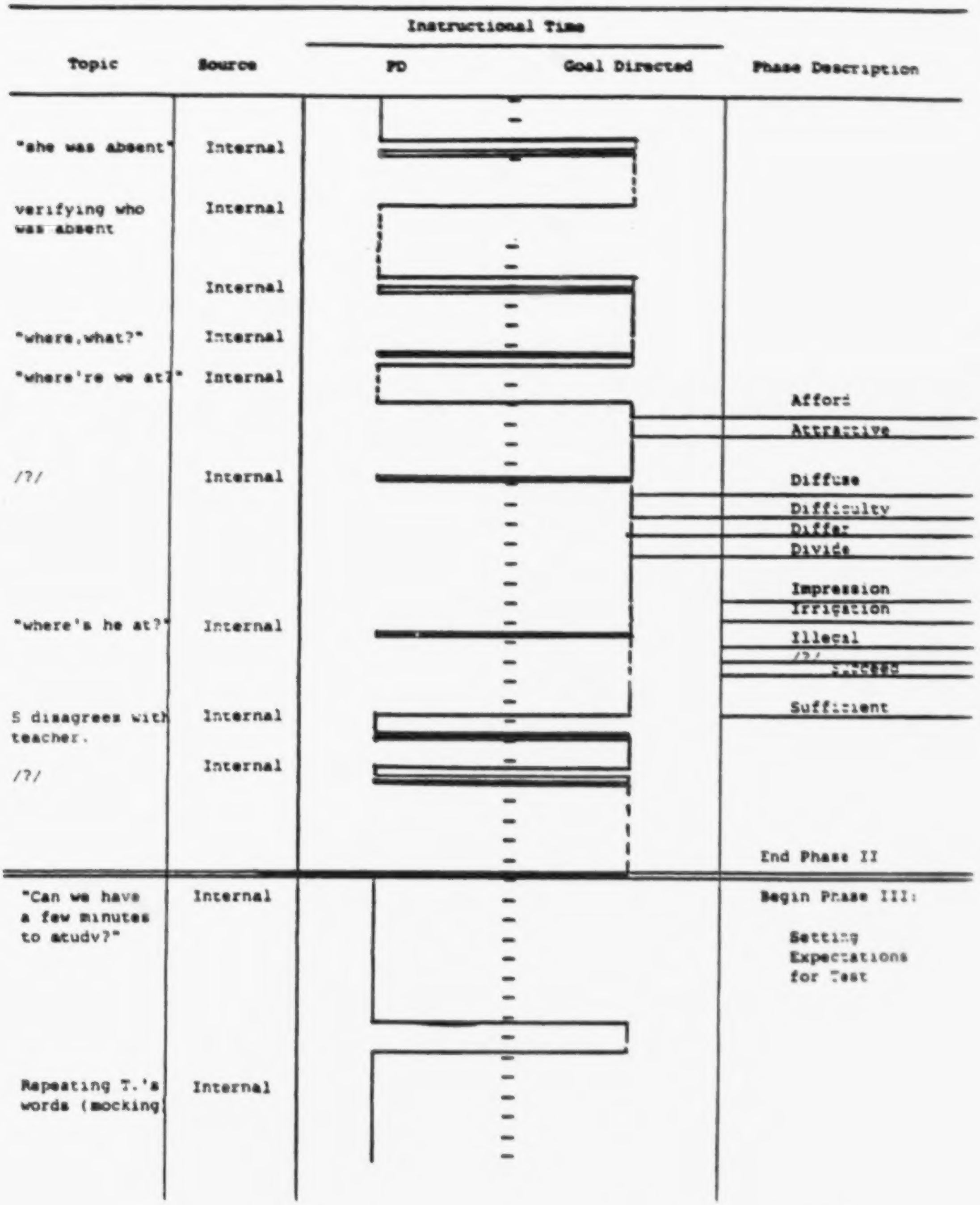
Figure 5.20 (continued)


Instructional Time
Topic
Source
PD
Goal Directed
Phase Description
"she was absent"
Internal
verifying who was absent
Internal
Internal
"where,what?"
Internal
"where're we at?"
Internal
Afford
Attractive
/?/
Internal
Diffuse
Difficulty
Differ
Divide
Impression
Irrigation
"where's he at?"
Internal
Illegal
/?/
S disagrees with teacher.
Internal
Sufficient
Internal
/?/
End Phase II
"Can we have a few minutes to study?"
Internal
Begin Phase III:
Setting Expectations for Test
Repeating T.'s words (mocking)
Internal

(Figure continues)

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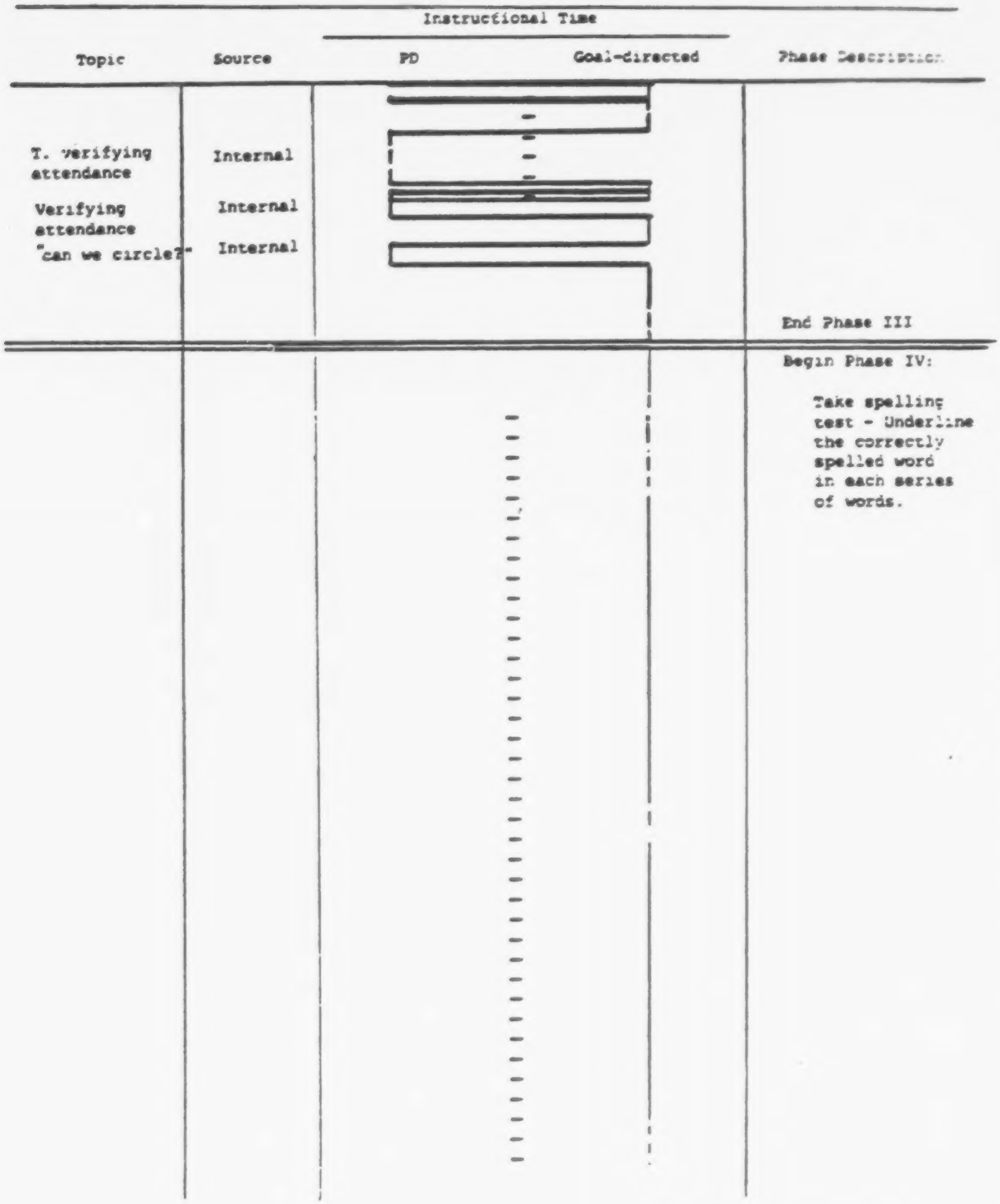
Figure 5.20 (continued)



		Instructional Time		
Topic	Source	PD	Goal-directed	Phase Description
T. verifying attendance	Internal			
Verifying attendance	Internal			
"can we circle?"	Internal			
				End Phase III
				Begin Phase IV: Take spelling test - Underline the correctly spelled word in each series of words.

(Figure continues)

Figure 5.20 (continued)

Topic	Source	Instructional Time PD	Instructional Time Goal-directed	Phase Description
				End Phase IV
				Begin Phase V Check answers on spelling test.
				Accordance
				Accordingly
				Accept
				Accident
				Accurate
				Acquaint
				Affair
				Affectionately
				Afford
				Allow
				Allowance
				Announce
				Appear
				Appearance
				Application
				Apply
				Approximately
				Arrest
				Arrive
				Arrival
				Bonus

/TAPE ENDS/

An illustration of one divergence from theme is contained in ISU #2, Figure 5.15. The pattern is not unlike other divergences. As indicated, the teacher did not respond to all potentially divergent talk, as in the case of student 5's announcement of his boredom. When the teacher did respond to a potential divergence, as in the case of Tony's question (student 1), the focus was on the divergent issue rather than on a return to the homework check. As in most divergences in this lesson, the teacher "slotted out" of the goal-directed group dynamic and into an individualized yet public encounter that continued through several interactions toward a resolution (29 seconds in this example). When finalized, the teacher then returned to the group and to the lesson at hand.

As described earlier in this chapter, a teacher conceivably chooses from a range of possible options in responding to any potentially divergent event. In this lesson, two options were demonstrated. According to the first, the teacher simply continued with the lesson. That is, no verbal clue was given that the divergent event had been witnessed, heard, or in an other way observed. The second option consisted of a pattern reflected in ISU #2, as just described. There may, of course, have been other observable response patterns demonstrated by the teacher that were not captured on the audio recording. These could have included changes in spatial configurations or proxemic cues (e.g., movement toward or away from the potentially divergent students), or in kinesic cues (gestures, body movements, facial expressions, eye gaze, etc.); no evidence of these is available. At best, the range of verbal response options demonstrated in this lesson is limited.

This analysis of goal-directedness produces more in the way of emergent questions than either hypotheses or interpretations. One central question involves the factors contributing to the teacher's choice between her two established response options. Specifically, questions could be addressed about the relative influence of source (e.g., the particular student), substantive content, and timing of potentially divergent events in terms of what functioned in pulling the teacher away from lesson, and what didn't. These could be posed in terms of the vantage point of the teacher, e.g. in search of identifying "triggers" for behavior. They could also be posed from the perspective of the student in terms of strategies or techniques that serve to influence teacher behaviors, and to direct or focus interactive contacts.

Additional questions have emerged about students' communicative goals. In this lesson, two students in particular were highly vocal (see Note 1). They received differential treatment in comparison to other students in that the teacher frequently attended to their divergent talk and failed to acknowledge other potential divergences. This is not to set an image of unrestrained deviance however. Rather, the two students also provided substantial contributions to the development of social, academic, and participation task structures in the lesson. They alternately assisted other students and the teacher in establishing functional oral response patterns, in prompting student responses during the homework check, in providing reasons and/or explanations for emergent confusions, and in clarifying instructions for the test. In effect, the two students provided signals when the teacher failed to do so, and when these signals were needed for maintaining lesson progression.

There is an old adage that goes: "sometimes, students learn in spite of the teacher." Achievement data for this group of students suggest that the saying does not apply. What this microanalysis reveals is that, sometimes, students *manage* in spite of the teacher.

Notes

1. The two students' contributions to lesson construction could be roughly traced through paralinguistic cues (pitch, stress, intonation, pause, rhythm, etc.) carried in their verbal interactions, even on occasions when they were not referred to by name. Nonetheless, the absence of information within nonverbal and inaudible messages mitigated against extensive investigation of the special roles they played in this classroom.

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Chapter 6

Stability and Variability: The Delivery of Instruction

This chapter focuses on yet another in the series of linked analyses that make up this Final Report. Each of these was designed in such a way that it could form a portion of the context for what was to follow, but the findings in each also serve to inform and expand what has come before. The present analysis is no different. While it can be considered a study in its own right, it is also dependent on contexts emerging from the process-product and sociolinguistic perspectives adopted in the preceding analyses.

In brief review, the analyses adopting a process-product approach explored the effects of training teachers in a normative model of effective classroom management (Chapter 2, this volume), and relationships between observers' ratings of classroom management variables and student achievement (Chapter 3, this volume). Selected outcomes in these analyses provided the basis for constructing and using a classroom management/student achievement typology in selecting a theoretical sub-sample of effective and less effective managers, and effective and less effective instructors (Chapter 4, this volume). The in-depth focused explorations that followed were approached from a sociolinguistic perspective; four descriptive models of lesson construction were generated using a single, representative lesson for each of the teachers classified within the management/achievement typology (Chapter 5, this volume).

The present anlysis, also approached from a sociolinguistic perspective, is organized in two component parts. The first pertains to teacher style and factors that contribute to stability and variability in instruction over time for individual teachers. These issues relate to the social organization in the classroom, and the match between the social organization and the content; they do not focus directly on the content. The analysis is based on a sample of multiple lessons for individual teachers. Comparisons are also drawn between a model of effective (trained) and less effective (untrained) classroom management. Two questions related to teacher style are addressed:

1. What aspects of instruction are stable within and across lessons for a given teacher?
2. In what ways is an effective classroom manager similar to and different from a less effective classroom manager in (a) lesson delivery, and (b) the establishment of norms and expectations for participation and performance?

The second component part of this analysis focuses on instructional management. By isolating the teachers' contributions to lesson structure, as separate from students, materials, and other sources of influence, comparisons and contrasts among the four descriptive models of effective and less effective teaching could be drawn. These pre-planned comparisons were intended to reveal unique features of instructional management that serve to support and/or constrain students' opportunities to acquire and demonstrate academic knowledge. The question addressed is:

> 3. In what ways is an effective teacher similar to and different from a less effective teacher in (a) the distribution and coverage of academic content and (b) the nature and frequency of themes signalled in support of academic task demands?

Teacher Style: Stability and Variability

The Concept of Teacher Style

Recent research has presented an image of the classroom as a differentiated communication environment in which demands for social and academic participation are continually shifting (Cazden, in press; Doyle, 1983; Green, 1983; Marshall & Weinstein, in press; Stodolsky, 1984). This view of classrooms carries implications, not only for how instruction is defined, how it is sampled, and how it is observed, but also for how teacher style is explored.

In the present analysis, the approach taken is based on a series of constructs that help to define the classroom as a communicative environment and teaching-learning processes as sociolinguistic processes (see Table 4.1, Chapter 4). The integrating thread that ties these constructs together is the view of teaching and learning as processes of meaning construction. Lessons are evolving entities in which teacher and students are co-participants in the construction of meaning. Curriculum, defined here as a dynamic and evolving phenomenon, and curriculum materials also contribute to the construction of meaning. Plans exist as entry frameworks rather than rote scripts. Participation in lessons and in everyday life in classrooms requires that teacher and students continually monitor what is occurring, how it is occurring, and what is needed for participation and for learning. They must also continually draw inferences about what is meant.

By observing the conversational work engaged in by both teachers and students (e.g., what is done, by whom, in what ways, in relationship to what, and what the consequences are for future actions), demands for participation and academic learning can be identified. Further, by systematically observing how the teacher works with students' contributions, how s/he orchestrates and organizes instructional activities, what the teacher signals as important, and what s/he sanctions positively and negatively, a picture of teacher style within and across lessons can be identified. Teacher style, defined in this way, is not a static or unitary characteristic, but rather a dynamic phenomenon signalled and resignalled within and across events. Style, like instruction, may vary in principled ways.

Recent research on differences in high and low reading group instruction (Collins, 1983; Cook-Gumperz, Gumperz, & Simons, 1981) and math instruction (Petitto, 1982) supports a view of teacher style as variable in systematic ways. This work suggests that teachers have, not a single theory, but different theories of instruction for different groups of students. The research has shown that even when teachers intend to teach all groups equally, they provide reasons for why they adjust instruction during delivery to fit the perceived needs of the particular group of students. These adjustments are not necessarily made in the pre-active, planning phase of instruction (Petitto, 1982). In other words, teachers are responsive to perceived student needs and they adjust the pacing, presentation, and content coverage accordingly. Some of this adaptation is conscious; some is tacit. Additionally, some strategies used by teachers reflect a difference in perceived student abilities as well as needs. For example, Collins (1983) found that the same type of error made by high and low group students in reading may be treated differently. A word identification error in the top group may be ignored while the same answer in the low group may stop reading and force the group or the individual to focus on decoding skills.

Adopting this perspective, the question of stability of teaching is addressed by considering which aspects of teacher style are consistent under what conditions, for an effective classroom manager and for a less effective classroom manager. The concept of management here incorporates both the academic and social participation structures evolving within the selected lessons.

Procedure: A Type Case Model Approach

The model for analysis is a within-case model; that is, a representative lesson (day) is selected for analysis. This analysis yields a model or typology that is then used to explore how the selected lesson (day) is like or unlike other lessons (days). The typology is elaborated when necessary, and frequencies of occurrence of different events within and across contexts are calculated. Factors that contribute to both stability and variability are identified, including social demands, academic content demands, and activity demands. In this way, an emergent picture of teacher style, academic and social participation demands, and classroom processes can be obtained.

Several steps were involved in developing the typologies for this analysis:

1. Audiotape recordings of one representative lesson (day) within three data collection periods were selected: August (the first day of school), September, and November. The August and September days represent a post training period (classroom management training), and the November day occurred after a second management training session. For the effective manager, an audio recording of a fourth lesson in May was also available. This collection time was "make-up" time for another phase of the larger project. Therefore, for the effective teacher, the question of stability across the school year could be explored.
2. Typescripts of the audiotapes were made for each of the selected lessons (days).
3. Each lesson was searched for stated instances of social norms or sequences of instructionally tied interactions between teacher and students that reflected social

and/or academic expectations (e.g., the way turns to respond were distributed, etc.).

4. The patterns and statements were grouped and a category was constructed. All instances of the pattern or the statements were listed on a form by days. A sample segment of one of these inventories is presented in Table 6.1.
5. The general category was then explored for patterns of similarity and difference in frequency of occurrence, and for functional equivalence of the items listed. Categories were then sub-divided to reflect differences in item clusters. For example, in the category of expectations, "teacher provides rationale for activities" was subdivided into: (a) over-all management procedures, (b) academic activities, (c) form of task, and (d) required procedure that facilitates other tasks.
6. The listings were then brought together to obtain description of the activities and tasks for each class period, teacher style, factors that influenced occurrence or non-occurrence of a category (e.g., type of task in which the activity occurred; academic content demands), and categories that were stable across collection periods.

Insert Table 6.1 about here

Representative Findings

Findings are presented here as a set of comparisons. Comparison 1 focuses on global description of the tasks that occurred within and across lessons (days). Comparison 2 focuses on the expectations that were signalled within and across lessons. Issues of stability and variability, and similarities and differences in teacher style are noted throughout. The effective classroom manager is Teacher A and the less effective manager is Teacher D, based on observers' ratings of selected classroom management variables sampled over the school year (see Note 1).

Comparison 1: Task comparisons within and across lessons. A summary of the tasks that occurred during the selected lessons (four for Teacher A; three for Teacher D) is provided in Table 6.2. Exploration of Teacher A's lessons reveals that she begins the first day of the school year with a statement of her own policies and with the establishment of a set of class policies and school policies. The first day also includes academic content (spelling). Analysis of the presentation of this content shows that the teacher involves students in the task by asking questions and eliciting specific types of participation. She also signals problem spots and contrast points to

Table 6.1

Sample: Expectation Form

Statement of Expectation	August	September	November
Teacher provides a rationale for the task she places on the students	Seems like a picky little thing but /?/	Take your books off so you'll have have plenty of room.	We need to know that later on a test don't we.
	If I can't read the word it will be counted wrong. I'm not trying to be mean or anything. It's just that it's really important in life /?/ to have clear penmanship. And I think it can be done. So the main thing to remember is it doesn't have to be beautiful - just clear.	I'll call out the words. If you need it repeated please raise your hand at that timeLet's not wait till the very end because you know what happens. Everybody will have that little bit of insecurity and want to hear all the words again.	We're going to run out of time if I don't. Let me tell you the right answers for these.

focus students on different features of the words to be spelled and the grammatical uses of these words.

Insert Table 6.2 about here

A subsequent spelling test (September) and review lessons (November and May) show similar patterns. Students are expected to participate when called on, to give rationales for their responses, and to demonstrate understanding of the concepts. The teacher also structures tasks to help students demonstrate knowledge in a variety of ways (e.g. spell word out of context; write word in a sentence). Ways of demonstrating knowledge vary within lesson. The teacher's use of variable formats remains stable while the academic content varies. In addition, the teacher is consistent in turn distribution.

Teacher D has a contrasting style. She begins the year by calling roll and then overviews the lesson for the day. She does not provide an overview of general policies. Teacher D then spends the remainder of the class period involving students in a "word search", e.g. a game-like task. Day 1 therefore appears to be "fun", not "work". Students and observers exit the first day's lesson not knowing what to expect either procedurally or academically. In September, Teacher D is introducing the procedure for formatting papers. Subsequent discussions with a district administrator indicated that the teachers had all agreed that they would use a common format for heading papers and that they had

Table 6.2

Tasks for each Class

Sampling Period	Teacher A	Teacher D
August	Roll; introduction of room policies (e.g. controlling self, spelling, telling things to others, chewing gum, etc.). T. has students tell the others what the policies are.	Roll; introduction for the day's lesson.
	Spelling pre-test. T. goes over format for spelling test, reviews rules for taking test (cover sheet, penmanship). Administers test saying word alone and then in a sentence. T. gives information on homonyms during the test by telling and eliciting answers from students.	English worksheet. T. gives directions for a word search worksheet for students to do. T. responds to questions about how to do the sheet ("game" activity).
	Check spelling. Has students self-check their own papers and copy correct forms next to their errors.	While students are doing worksheet, T. is passing out textbooks to students.
September	Preparing for spelling test. T. reviews procedures for spelling test, involves class by asking questions of specific students about spelling procedures and format.	Introduction and classroom management Roll call. T. tells students materials they will need and procedures for getting them.

(Table continues)

Table 6.2 (continued)

Sampling Period	Teacher A	Teacher D
September (continued)	Spelling test. T. sometimes reads word and sometimes has students write word in a sentence.	Spelling. T. and students pronounce words in unison. T. discusses word suffixes. T. assigns and pronounces bonus words. T. explains point system for final test. T. assigns words to remedial spellers.
September	T. collects spelling tests allows students to look at words they just spelled and has them copy list of words for following week.	T. describes procedures and format for journal. T. tells students about materials needed for journals, ink color to use, one entry/page, and procedures for table of contents.
November	Review on irregular verbs. Calls on students to provide answers.	Setting expectations T. assigns tasks to 3 groups.
	Review on verb tenses. Students read sentence with correct forms of target verbs. T. calls on students to give answers.	Check homework, group 1. Students say and spell each word.

(Table continues)

Table 6.2 (continued)

Sampling Period	Teacher A	Teacher D
November (continued)	Incorrect verbs. T. calls on students to give sentences with revised verb.	Introduce spelling test. T. passes out papers and gives directions for test.
	T. leads discussion on active/passive verbs. T. and students work through active/passive part of review.	Spelling test. Students work individually, with comments, questions.
		Check spelling test. T. reads correct answers to spelling test while students check each other's papers.
May	T. and class go over and correct a previous assignment on correct punctuation. T. either states the correct form or elicits form from students, by name. T. also states and elicits underlying rule for punctuation.	
	T. has class take notes on using quotation marks. T. provides explanations and examples for use of quotation marks.	

written a manual including these procedures. While Teacher A had set out the task on day 1, Teacher D had not.

Further exploration of lessons in September and November suggest that Teacher D is still establishing expectations. Much of these days is spent in signalling what to do and how to do it. In contrast, Teacher A appears to move quickly and smoothly into academic tasks from the first moments of class (see Note 2).

What is obvious when the two classrooms are compared is that lesson is a complex phenomenon. Each has two or more clearly bounded activities -- in the junior high school setting, lessons are bounded by student entry and exit at class change time. On some days, the activites within the lessons are closely related, or "tied", and on other days, the activities are quite different. A tied set of activities is characteristic of Teacher A's lessons. That is, each lesson focuses on a general task, but activities within the lesson foucs on different aspects or features of the task. Variability within and across lessons is characteristic of Teacher D. One example is the journal writing activity. In this classroom, procedures for the format of journals were described in September. In November, two months later, journal entry #2 was assigned. The time span between setting expectations and assigning the second journal entry appears as evidence of high variability, or perhaps lack of continuity, in activities. What appears to remain stable for both teachers is the way in which student participation is elicited. In Teacher A's room, students were called on and turns were distributed by the teacher. In Teacher B's room, the turn distribution mechanisms and participation rules were not as clear; student confusion was frequently evident as a result.

Comparison 2: Stability and Variability in Expectations. The similarities and differences between the two teachers in terms of signalling expectations are striking, as illustrated in Table 6.3. This table contains frequencies of occurrence of a select set of expectations extracted from the recorded conversations. Seven categories of expectations reflecting both management and academic signals are included. What becomes evident when the two teachers are compared is that the question changes. It becomes not so much what the teacher holds as an expectation, but rather, how the particular expectation functions and the extent to which students and teaacher adhere to it. For example, both teachers provided verbal rationales for activities, although Teacher A did so more consistently. In Teacher A's November lesson, when the frequency of rationales increases significantly, the variability in task demands also increases. In this lesson the teacher and students are reviewing an assignment, and throughout, the teacher gives rationales for what to do and why.

Insert Table 6.3 about here

The most dramatic difference between the two teachers is found in the categories of (a) student calls out, and (b) teacher signals academic content. As the year passes, the number of instances of

Table 6.3

Frequency of Signalled Expectations across Lessons.

Expectation	Teacher A Aug.	 Sept.	 Nov.	 May	Teacher D Aug.	 Sept.	 Nov.
Teacher provides a rationale for activities	5	4	2	2	2	0	0
Students may ask questions or make statements when recognized by the teacher							
- raise hand if you want to ask a question	2	1	12	4	0	1	0
- student designated but bid not clear	0	0	4	0	3	2	1
- student calls out	0	8	0	9	21	19	74
Teacher previews tasks to be done							
- within day	4	3	0	2	1	2	1
- across days	2	1	0	0	0	1	0
Teacher signals key aspects of academic content	6	4	61	33	1	3	0

(Table continues)

Table 6.3 (continued)

Expectation	Teacher A Aug.	 Sept.	 Nov.	 May	Teacher D Aug.	 Sept.	 Nov.
Teacher sets expectations for task structure							
- for formatting papers	5	9	0	1	2	17	0
- for handing in papers	0	3	0	2	0	3	0
- directions for task	9	10	1	10	26	5	11
- location of task in text	1	3	0	1	0	6	7
Correct spelling is required	1	1	12	0	0	1	0
Correct punctuation and grammar is expected	1	3	0	0	0	0	0

student call-outs increases for Teacher D -- it almost triples. In contrast, Teacher A has call-outs on only two of the four days. On these days the teacher had asked students to volunteer information or to ask questions. The questions and call-outs in Teacher A's room were positively sanctioned; those in Teacher B's room appeared to result from confusion and lack of clarity.

Teacher A also increases the amount of academic content signalled. She tends to involve students in giving explanations of items during reviews. In the review lessons (November and May) as well as in the spelling test (August), she discusses aspects of words or grammar that need to be considered. Her content coverage increases over the year. Teacher B, in contrast, spends much of her time clarifying directions. She provides little information about the content. One interpretation is that Teacher A is an excellent manager; her expectations are clear and she and the students share a common set of expectations. In contrast, Teacher B is a poor manager and students do not have a clear understanding of what is expected. Students in her class do not have an opportunity to focus on the academic content of the lessons.

Summary. Examination of teacher style across a sample of lessons in the school year reveals characteristics of both stability and variability. For one teacher, identified as an effective classroom manager, consistency and stability are recognized in the selection and use of varying activities and formats for lessons, varying ways for students to demonstrate knowledge on a general topic, and consistency in turn distribution. What varies is the academic content. For another teacher, the less effective classroom manager, variability in activities was also identified. For each teacher, the ways in which student participation was elicited remained stable over this sample of lessons; there were sharp contrasts between teacher in the ways this was done.

In regard to signalling expectations for participation, what has emerged in this analysis is that any particular expectation held by the teacher is not of as much interest as the ways expectations function and the extent to which students and teacher adhere to the expectations. Both teachers provided rationales for what students were to do; the effective teacher did so more frequently than the less effective teacher. Students in both classrooms demonstrated "call-out" behaviors. These were infrequent for the effective teacher, and in each case they had been invited and were not negatively sanctioned. For the less effective teacher, student "call-outs" nearly tripled over the sequence of lessons sampled, and appeared to result from student confusion and lack of clarity in the lessons.

Lesson Construction and Instructional Management

One finding in the above analysis of teacher style suggests that the ways in which individual teachers elicit student participation in lessons remains stable over time. This finding confirms the representativeness of lessons selected for the focused explorations presented in Chapter 5. That is, the detailed, descriptive models of teaching and learning processes in the four selected classrooms are not based on an accidental, hit-or-miss sample. This finding further provides a portion of the entry context needed for the present component of this analysis: the systematic comparison and contrast between and among teachers in relation to instructional management.

Another central finding, this one from the process-product analyses, is also brought forth here. Specifically, evidence pointed to a conclusion that effective classroom management is necessary -- but not sufficient -- to bring about student achievement gains. Hence, the focus in this analysis is on articulation of the difference between what is necessary and what is sufficient. Evidence is provided in support of a conception of instructional management that, although corollary to earlier conceptions of classroom management, exists as a distinct entity in its own right.

The findings presented here demonstrate similarities and differences in the ways four different junior high school English teachers manage the content of instruction. Two aspects of lesson management are considered: (a) structural characteristics related to demands for social and academic participation, and (b) thematic development. In other words, the findings are intended to disclose what can be learned about the teacher's unique contribution to lesson construction in terms of instructional sequencing, and the extent of opporuntities available for students' to acquire academic knowledge. Based on the criteria through which these teachers were selected, implications are drawn throughout about relationships between instructional management and student achievement.

Demands for Social and Academic Participation

This initial set of findings relates to the nature of lessons as differentiated communication environments, and further, to the identification of patterned differences between and among the four descriptive models of classroom management and instruction. In Chapter 5, detailed summaries of lesson structure were generated to reveal, among other things, that classroom lessons evolve as a series of lesson phases, each phase varying in terms of the demands placed on students for appropriate participation. Further exploration revealed a co-occurence of both social demands (e.g., speak when called on) and academic demands (e.g., name the verb) within the lesson phases. This suggested that lesson is not a unitary phenomenon. Rather, lessons are structured in terms of highly differentiated parts through which the teacher, more or less consistently and continually, shifts the demands for student participation and demonstration of academic knowledge.

Comparisons across the four lessons suggested a pattern of relationship between lesson phase sequencing and the rank order placements of teachers on the classroom management and student achievement dimensions. Summary maps were constructed as a means of foregrounding the contrasts, and are presented in Figures 6.1 - 6.4. As illustrated, social and academic features of the demand structures were categorized separately for analytic purposes. A mapping convention, the boldface broken arrow (↯), was adopted to mark the existence of a break in demand structure at the boundaries between lesson phases. In cases in which the change in social demand required both a shift in materials (e.g., get workbooks from the shelf) and a shift in the social participation structure (e.g., bid for turn), double broken arrows are indicated (⇊). In regard to the academic demand structure, double broken arrows are indicated when the change in topical theme is major, e.g., from spelling to English. The frequencies of breaks in demand structure are tallied as marginals, both down and across, to provide a quantitative basis for comparisons across teachers. A case-by-case description follows.

Insert Figures 6.1 - 6.4 about here

Teacher A. Examination of the lesson phase sequence in the grammar review lesson in Teacher A's classroom (see Figure 6.1) reveals two characteristics. First, there is a comparatively tight, sequential progression in the evolving academic demand structure. Students first identify principal parts of verbs, then they identify the tense when given a principal part. Phase 3 requires the application of knowledge from the first two phases as students begin to work at the sentence level (words in context) rather than at the principal part and word levels. This progression continues through the remaining two phases; the level of complexity gradually increases, and yet each of the later phases also focuses on a different aspect, or angle of vision, about verbs. Second, the social task requirements do not change appreciably. In some phases students are called on by name at random, and in other

Figure 6.1

Summary map: Frequency of changes in social and academic task demands, Teacher A.

Phase	Social demand	Academic demand	Total
1	Respond when called on (at random).	Give past and past participle of given verb.	
	↓	↓	2
2	Volunteer by raising hand; respond when called on.	Give tense for given verb.	
	↓	↓	2
3	Respond when called on (at random).	Read sentence, supplying verb in correct tense (given present tense verb).	
	↓	↓	2
4	Respond when called on (at random); then volunteer another response (more than one correct answer) by raising hand; then respond when called on.	Given sentence with incorrect verb, read the sentence, correcting as you read.	
	↓	↓	2
5	Listen as T. gives correct answers; ask questions at end, if you have any.	Check paper - identifying verbs as active or passive - as T. gives answers.	
Total:	4	4	8

Figure 6.2

Summary map: Frequency of changes in social and academic task demands, Teacher B.

Phase	Social demand	Academic demand	Total
1	Number paper 1-23; then take working from test paper and reference list; pass paper to front when told to; receive paper for next part of lesson.	Identify auxiliary verbs in 23 sentences.	
	↓↓	↓	3
2	Volunteer for turn by raising hand; respond when called on.	Give verb phrase; main verb, and auxiliary verb.	
	↓↓	↓	3
3	Open book to p. 55; volunteer for turn by raising hand; respond when called on.	Give answer depending on T.'s question.	
	↓	↓	2
4	Number paper 1-10. Complete exercise on p. 56.	Identify verb phrase and auxiliary verb.	
Total:	5	3	8

Figure 6.3.

Summary map: Frequency of changes in social and academic task demands, Teacher C.

Phase	Social demand	Academic demand	Total
1	Listen as T. reads and write on paper 1-25.	Spell word correctly.	
	↓	↓	2
2	Listen as T. re-reads; pass in papers when told.	Check accuracy.	
	↓↓↓	↓↓	5
3	Get workbooks, turn to p. 18; respond when called on.	Say "anything you can remember about verbs."	
	↓	↓	2
4	Look on p. 18; listen.	Hear about "he/they" test.	
	↓	↓	2
5	Give group response (yes or no) after T. says "He /word/, they /word/" from list in workbook.	Identify verbs.	
	↓↓	↓	3
6	Respond when called on; work from list on board.	Identify the verb in sentence.	
	↓↓		2
7	Number paper 1-20; write one word on paper from each sentence in book; raise hand if you have a question.	Identify the verb in sentence.	
Total:	10	6	16

Note: There was no transition in the academic task demand between phase 6 and phase 7; marginal frequencies reflect only the 2 shifts in social task demand between phase 6 and 7.

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Figure 6.4.

Summary map: Frequency of changes in social and academic task demands, Teacher D.

Phase	Social demand	Academic demand	Total
1	Listen for group assignment; get materials according to group (3 groups).	———	
	↓↓↓		3
2	Group 1: Respond when called on; work from homework paper.	Pronounce and correctly spell word.	
	↓↓	↓	
3	Listen to instructions for spelling test.	———	4
	↓	↓	
4	Take test.	Identify correctly spelled word in a series of words.	
	↓↓	↓	3
5	Exchange papers; then listen as T. gives answers.	Check correctly spelled word in each series.	
Total:	8	2	10

Note: There was no evidence of academic task demands in phase 1 and phase 3; the row marginal is collapsed over two phase boundaries.

phases, students raise hands to bid for turn. Overall, the entire lesson requires working with one sheet of paper, moving through the items one by one, section by section. The social participation demand changes more noticeably in the last phase when it becomes "listen as the teacher gives the answers" (as the teacher verbally signalled, class time was running short). Even so, this change was minor in comparison to phase transitions signalled in other classrooms. The quantitative description in Figure 6.1 indicates an even balance between social and academic demand shifts in Teacher A's lesson.

Teacher B. In Teacher B's lesson (see Figure 6.2), while the phase structure reveals a sequential progression in the academic task demand, social participation demands require shifting from test paper, to "the paper just returned to you" (during the preceding phase), to the workbook (distributed by front row students to other students on their row). Teacher B is, of course, second in the rank order placements on measures of both classroom management and student achievement. Reference to Figure 6.2 reveals an increased proportion of social demand shifts in comparison to Teacher A's lesson.

Teacher C. The pattern of phase sequencing in Teacher C's lesson, summarized in Figure 6.3, reveals dramatic shifts in both academic and social participation tasks. In regard to academic demand, the lesson shifted from spelling to verbs at the boundary between phases 2 and 3. In addition, the teacher's opening series of messages in phase 3 was as follows:

okay remember
Tuesday
all the way back to Tuesday
we started working on verbs
now that was our first time on verbs
can you tell me anything you remember
about verbs

Subsequent statements indicated that the introductory lesson on verbs had been two days earlier. There was no indication about lesson content on the day in between, other than the fact that verbs had not been covered on that day. Although the shift between days is not reflected in Figure 6.3, it was apparent that academic demand shifts, both across days and within this lesson were major. Similarly, the changes in social task demand required substantial transitions between phases. Students were required to move from the spelling paper used in the first two phases, to text and workbooks used in a discussion phase that followed. The discussion phase, Phase 3, required bidding for turn; students were called on at random in phase 4. Phase 5 required shifting to a unison response pattern with no bidding, and phase 6 required shifting back to teacher designation of individual responders, as well as movement from the books to the chalkboard. Finally, students shifted to a written exercise that required a return to the workbooks. The total frequency of both social and academic demand shifts in Teacher C's lesson, as indicated in Figures 6.1 - 6.4, is higher than for any of the other three teachers. Further, the shifts in social demands outnumber the shifts in academic demand, suggesting a progression across the three teachers discussed to this point

(Teacher A, 4 : 4; Teacher B, 5 : 3; and Teacher C, 10 : 6). With regard to the classroom management/student achievement typology (see Figure 4.5, Chapter 4), Teacher C was selected as representative of effective management (moderately effective in terms of rank order placement) and less effective instruction (based on student achievement).

Teacher D. In this lesson, the examination of the academic task structure revealed a progression in academic demand (see Figure 6.4); however, only two demand shifts were required. The social participation task structure, in contrast, is relatively complex. As indicated for Phase 1, the day's activities were organized for three separate groups. Hence, although the researchers followed only the group that remained with the teacher, there were three separate phase structures evolving simultaneously within the classroom. While the teacher later directed Group 1 in the spelling lesson, a student could be heard in the background, via the audio recording, reading a separate list of spelling words for another group. Yet a third group was involved in a journal writing activity. As indicated in Figure 6.4, the boudary between phases 1 and 2 reflects a demand shift for students in all three groups (e.g., triple broken arrows) as they moved into their assigned activities. Subsequent boundaries reflect only transitions demanded of students in the group that remained with the teacher. The ratio of social demand shifts to academic demand shifts (8 : 2) is extreme in Teacher D's lesson. Teacher D had been selected for the model of less effective classroom management and less effective instruction.

Summary. Two patterns are evident across teachers. First, as teacher rank on the classroom management and student achievement dimensions decreases, the total number of participation demand shifts increases (Teachers A and B: 8 each; Teacher C and D: 16 and 10, respectively). That is, as teacher effectiveness rank decreases, there is an increasing demand placed on students to interpret changes in their rights and obligations for appropriate participation in classroom events. Second, as teacher rank decreases, the proportion of social demand shifts in relation to academic demand shifts also increases (Teacher A - 4:4; Teacher B - 5:3; Teacher C - 10:6; Teacher D - 8:2). That is, for academically effective teachers, the demands placed on students to interpret changes in their rights and obligations for appropriate participation in classroom events are relatively balanced between academic demands and social demands. In contrast, for less academically effective teachers, the frequency of social demand shifts is greater than the frequency of acadmic demand shifts.

Thematic Development

Beyond the nature of participation task demands, lesson structure can also be considered in terms of the distribution and amount of content coverage, and the extent to which academic themes are introduced and developed. The intent in this phase of the analysis was to explore questions about the teachers' unique contributions to lesson structure in terms of academic content and the construction and negotiation of academic meanings. Academic content issues were explored and described in development of the individual models of lesson construction (see

Chapter 5). Multiple factors were identified that contributed to content distribution and thematic development in all of the four lessons. These included, in general, the structure of the curriculum materials (e.g., the number of items in a workbook exercise), students' contributions (e.g., a student's question about a particular item, a student's response that influences the development of academic themes, a student's divergent action that influences the amount of time available for academic content, etc.), and the teacher's contribution (e.g., lesson phase sequencing, verbal signalling of academic themes, "cycling" academic themes through interactive sequences, etc.).

The challenge in drawing systematic comparisons across teachers lies in the need to identify, characterize, and in other ways isolate the multiple sources of influence on lesson construction, for analytic purposes. The methodological approach taken in this analysis involved selection of a sub-sample of lesson phases on the basis of their comparability in participatioon task structures. That is, if similarities across classrooms in students' rights and obligations for participation and the procedural demands signalled by the teacher could be identified, then differences in the distribution and coverage of academic content could be explored, and the teachers' relative contributions in terms of thematic development could be identified. A description of techniques used in selection of the sub-sample is provided next as needed for justification of comparability of the lesson phases. The description of findings will then follow.

Comparability in social and academic task structures. Three of the November lessons sampled for the in-depth, focused explorations dealt with grammar: identifying verbs and verb forms. A fourth lesson was on spelling. Selection of a sub-sample of particular phases within each of the lessons was based on similarities among the four teachers in management patterns. A summary description of each of the selected lesson phases is provided in Table 6.4. As indicated in the task descriptions, social participation demands in each lesson phase were structured within a recitation format. In general, these demands involved an oral, in turn, item-by-item review of a workbook or homework exercise that students had completed individually at an earlier time. Thus, in spite of potential surface differences between grammar lessons and spelling lessons, particular lesson phases could be identified as comparable on the basis of similarities in the demands for student participation.

Insert Table 6.4 about here

In all cases in these selected phases, teacher and students worked through a list of items either contained on a mimeographed paper or written on the chalkboard. In Teacher A, B, and D's classrooms, the exercise had ostensibly been completed by students as homework assigned on the preceding day, e.g. the exercise could be classified as a review exercise. In Teacher C's classroom, the task did not involve a homework

Table 6.4

Summary description of lesson phases selected for comparison of structural characteristics across teachers.

Teacher	Lesson Phase	Task	Length (Seconds)	ISU			IU			
				f	X length	SD	f	X length	SD	X f / ISU
A	2	Given a verb phrase, say the tense, when called on. Raise hand for turn.	514.7	32	15.94	12.43	93	5.47	3.38	2.9
B	2	Raise hand for turn, read sentence, then name verb phrase, main verb, and auxiliary verb, when called on.	642.29	19	33.82	18.97	114	5.64	3.93	6.0
C	6	When called on, read sentence from board, then say what verb is in the sentence.	395.34	16	24.71	20.39	107	4.01	2.53	6.68
D	2	When called on, pronounce, then give assimilated spelling of words; do number of words indicated at designation of turn.	616.06	41	15.02	25.42	116	6.46	5.28	2.82

ISU: Instructional Sequence Unit
IU : Interaction Unit

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assignment. Rather, as examination of Figure 6.3 reveals, the task could be viewed as a logical progression and extension of the academic participation requirements in the preceding three lesson phases. Demonstration of knowledge in this phase required application of the principles and techniques taught in the three immediately preceding lesson phases. In the cases of Teachers A, B, and C, students were expected, when called on, in turn, to demonstrate knowledge related to verb usage. The academic tasks were, respectively for Teachers A, B, and C: to name the verb tense in a given verb phrase; to name the verb phrase, main verb and auxiliary verb in a given sentence; and, to name the main verb in a given sentence. In Teacher D's classroom, the students were expected to give an oral response, correctly pronouncing and then spelling a series of three to six words using a technique known as "assimilated spelling." The given information in the workbook exercise included, by item, a two letter prefix, a hyphen, and a base portion of the word (e.g., "af- lowance" (sic); correct response: allowance, a l l o w a n c e). The academic task consisted of application of "rules" of assimilated spelling, given in the workbook, to each of the 40 items. As indicated earlier, this is a task that students had first encountered as a homework exercise and in-class work involved giving answers from their homework papers. The same is true of the tasks in Teacher A's and Teacher B's classrooms.

Further examination of Table 6.4 reveals variability among the selected lesson phases in structural characteristics (see Note 3). That is, they varied in length of time and content coverage (e.g., number of instructional sequence units, as well as average length of time and variability in time per ISU). In terms of frequency of interaction units, all selected lesson phases are roughly comparable and reveal a relatively high degree of interactive contact. The varying number of items within the different exercises partially explains the differences in length of phase. The number of items in relation to the number of instructional sequences (ISUs), respectively for Teachers A through D, was: 29 items within 32 ISUs, 17 items within 19 ISUs, 15 items within 16 ISUs, and 40 items within 41 ISU's. Thus, to a large extent, the structure of the materials adopted for use explains differences in the number of content topics covered within the phase. Other factors contributing to variability, which were identified through recourse to the original maps, include the length of time required for the student to complete the designated task (e.g., reading the sentence and then giving a one word response vs. simply giving a one word response), and the amount of teacher talk distributed before and after student talk. This distribution of teacher talk, and the thematic content and structure signalled and constructed through the talk, is the focus for comparisons across teachers.

Findings. Summary maps of the content themes signalled by each teacher within the selected lesson phases are presented in Figures 6.5 - 6.8. Structural characteristics including the ISU number, the topic, and the length (in seconds) of each sequence are listed, as well as the distribution of academic themes signalled by the teacher (see Note 4). The vertical line extending from each initial statement of a theme serves as an indicator that the signalled theme remains "in place" as the lesson continues through to its conclusion. Re-signalling or restatement of a theme is indicated by its position directly under (e.g., sharing the same left hand margin) the initial statement, thus providing a relative estimate of the "saturation" of each theme over time. This form of summary mapping provides a visual representation of the conceptual scaffold that gradually becomes available for student use in reading, interpreting, negotiating, and understanding the academic participation task demands. Contrasts between teachers are apparent in both the relative number of themes signalled and the frequency with which themes are re-stated or reinforced. A case-by-case description follows; comparisons are drawn throughout.

Insert Figures 6.5 - 6.8 about here

Teacher A. In Teacher A's lesson phase, 10 academic themes were signalled. Two of the signals were repeated, as indicated by the brackets in the theme lines (see Figure 6.5). The second of these, a signal that passive verbs can be identified according to presence of a "be" verb and a past participle, "saturated" the lesson phase. That is, this signal, initially introduced in ISU 32, was re-stated six times in subsequent ISUs. The academic task demand in this lesson phase was to identify the tense of a given verb phrase. One section of the review

Figure 6.5 Summary description of academic themes signalled, Teacher A, phase 2.

ISU[a]	Topic	Content Themes Signalled	Time
21	setting expectations		15.20
22	had taught	"had" means past perfect	25.00
23	held	think about principle parts	49.80
24	is paying		7.50
25	lets	singular verbs end with "s"	21.80
26	were winning	present participle + "be" verb helper --> progressive	14.50
27	will toss	"will" + present = future	14.30
28	spelling "future"	there is no "r" in "future"	36.00
29	have sat	"have" + past participle --> present perfect	15.70
30	(procedural statement to Greg)		4.00
31	will have fallen	"shall have" and "will have" are future perfect helpers	13.40
32	were brought	"be" verb helper + past participle = passive	47.60
33	has been writing	i n g --> progressive	7.50
34	is given	"be" verb + past participle --> passive	8.60

(Figure continues)

Figure 6.5 (continued)

ISU[a]	Topic	Content Themes Signalled	Time
35	shall have gone		11.60
36	does interest	"does", "did" --> emphatic	31.40
37	was thinking		6.60
38	will do		4.60
39	was left	"be" verb + past participle --> passive	8.20
40	do find		3.50
41	am going		8.10
42	had been		5.40
43	had been seen	"had" + "be" verb + past participle --> passive	27.70
44	was learning		13.30
45	has finished		6.10
46	will have been reading		6.70
47	did leave		4.90
48	will be chosen	"be" verb + past participle --> passive	19.60
49	has been gone	"be" verb + past participle --> passive	33.00
50	will have been written	"be" verb + past participle --> passive	21.80
51	questions? (no students had questions)		10.50

[a] ISU: Instructional sequence unit.

Figure 6.6 Summary description of academic themes signalled, Teacher B, phase 2.

ISU[a]	Topic	Content Themes Signalled	Time
2	verb phrases	a verb phrase can have one, two, or three auxiliary verbs other words (not verbs) can interrupt the verb phrase	76.02
3	have rebuilt		24.01
4	have given		25.05
5	will go		19.05
6	work	"work" is a naming word in this sentence "the secret for success in English is what does a word do for that sentence . . . you have to say what does it do in that sentence."	29.95
7	wrecked	"verbs are wants, action, existence, and occurrence"	63.56
8	is becoming		21.65
9	have located	verbs can be more than one word	30.59
10	have aided	"others" is a noun	24.01

(Figure continues)

Figure 6.6 (continued)

ISU[a]	Topic	Content Themes Signalled	Time
11	are coming		17.29
12	should use	"this is one where the verb phrase is interrupted	52.69
13	were		15.76
14	will be		11.25
15	tastes		19.46
16	have finished	"not" is never a verb; don't include it in the verb phrase	51.91
17	has finished	"-ly" words are never part of the verb phrase.	41.83
		"not", "never", and "-ly" words are not part of the verb phrase	
18	had brought		27.17
19	are seen	"here" doesn't show action	25.86
20	have finished	leave the "n't" out of the verb phrase	65.18
		"nearly" does not show action; it is an adverb	

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[a] ISU: Instructional sequence unit.

Figure 6.7 Summary description of academic themes signalled, Teacher C, phase 6.

ISU[a]	Topic	Content Themes Signalled	Time
63	Setting expectations	Use the "he/they" test.	80.45
64	boasted		10.93
65	won	Once is an adverb.	46.92
66	was		11.98
67	spell	[a verb] is something you can do.	46.11
68	get		11.77
69	is	On a be verb, change "they" to "it", "was" to "were", and "is" to "are".	56.62
70	listen		8.22
71	spoke		7.37
72	is		10.63
73	are	Remember what we said on "be" verbs.	51.06
		Bright is an adjective.	
74	are		7.81
75	spell	Find something you can do.	58.41
		Forward is an adverb.	
76	asked		8.13
77	replied		12.88
78	are		8.38

[a] ISU: Instructional sequence unit.

Figure 6.8 Summary description of academic themes signalled, Teacher D, phase 2.

ISU[a]	Topic	Content Themes Signalled	Time
2	allowance		89.76
3	application		9.47
4	accurate		6.55
5	affair		4.85
6	announce		8.23
7	arrest		20.94
8	attention		16.65
9	acquaint		36.49
10	affectionate		5.50
11	accident		20.70
12	collection		14.10
13	correct		10.39
14	correspondent	There are two Rs (in correspondent)	26.37
15	connect		11.76
16	effort		9.58
17	effect		2.82
18	eclipse		49.34
19	offense		41.22
20	occasionally		15.70

(Figure continues)

Figure 6.8 (continued)

ISU[a]	Topic	Content Themes Signalled	Time
21	/?/		7.00
22	attend		8.62
23	assure		3.43
24	assistant		4.07
25	arrivaal		6.50
26	attempt		9.83
27	appear		3.54
28	assume		5.07
29	association		8.77
30	afford		137.73
31	attractive		5.25
32	diffuse		17.56
33	difficulty		7.99
34	differ		4.99
35	divide		5.16
36	impression		14.97
37	irrigation		5.13
38	illegal		7.40
39	/?/[b]		7.53
40	succeed		3.25
41	sufficient		16.58
42	Passing in papers		47.30

[a] ISU: Instructional sequence unit.

[b] /?/: inaudible (In both cases, teacher signalled that student's response was correct).

activity that was to follow in a later phase required students to focus exclusively on active and passive verbs.

Teacher B. In Teacher B's lesson, four academic themes were signalled, as indicated in Figure 6.6. They include: (a) a verb phrase can have one, two, or three words; (b) other words, not verbs, can interrupt the verb phrase; (c) "the secret for success in English is what does a word do for that sentence"; and (d) verbs are wants, action, existence, and occurrence." Each of the four themes were signalled at least twice.

The present analysis fails to demonstrate a substantial difference between Teacher A and Teacher B in the nature of themes signalled. Both teachers periodically "slot out" of their ordinary interaction patterns, to signal academic cues to students. There is a difference, nonetheless, in the interactive delivery systems used by the two teachers. These patterns were described in considerable detail within the descriptive models presented in Chapter 5. Essentially, Teacher A follows a pattern of asking a series of questions within most instructional sequence units for which students must provide a reason or rationale for an earlier response. Many of the teacher's questions are built onto a preceding student's response, e.g. questions "cycle back" through earlier responses, and thus serve to potentially extend or broaden the concepts. Reference to Figures 4.2 and 4.3, Chapter 4, conveys a sense of this pattern in both the short and extended ISUs.

In Teacher B's classroom, in contrast, questions to students do not follow this pattern. Rather, academic themes are signalled by the teacher without incorporation of student questioning as part of the thematic development. Again, reference to Figure 5.7, Chapter 5, conveys a sense of the pattern in Teacher B's classroom. One finding suggested within the individual case model for Teacher B's lesson entailed a limited three-way interaction pattern between teacher, students, and the academic content. That is, students were not prompted to interactively justify or to comment on the reasoning that may have been guiding their choices. Had such opportunities been extended, public demonstrations of student reasoning, was well as the teacher reasoning available within the theme signals would have been "in place". Although the conceptual scaffold signalled by the teacher did provide a set of reasonable and practical strategies for students to use in successfully completing the academc tasks, the operation of these strategies remained a private enterprise for each individual student. This feature of the conversational work in lesson construction marks the central difference in the systems of thematic development provided by Teacher A and Teacher B. Teacher B placed second in the rank order comparisons on dimensions of classroom management and student achievement.

Teacher C. As illustrated in Figure 6.7, three academic themes were repeatedly signalled in Teacher C's lesson phase: a) use the "he/they" test, b) a verb is something you can do, and c) some words are not verbs. The summary map also illustrates one instance of a broken theme signal. In ISU #63, the teacher cues the students to use the "'he/they' test", demonstrated in earlier lesson phases, to help them determine which of the words in a given sentence is the verb. Later, in ISU #69, an exception to the general applicability of the "'he/they' test" is explained by the teacher. This represents a break or a departure from the signal provided earlier, as signified by the double diagonal slash on the theme line. Detailed explorations of this event revealed that the teacher had implemented a transition from workbook materials, through which the "'he/they' test" had been presented, to a list of sentences on the chalkboard for this lesson phase. The sentences were taken from a different source. What the teacher failed to anticipate is the frame clash between the two alternative sources of practice exercises on identifying verbs. Examination of the summary map reveals, 6 of the 15 verbs contained in the sentences on the chalkboard are various forms of the verb "to be." Application of the "'he/they'" test to "be" verbs is highly problematic; it doesn't work.

Further exploration of the compatability of theme signals in the summary map for Teacher C's lesson phase reveals additional internal conflicts. For instance, the signal that "[a verb] is something you can do" also contradicts the identification of "be" verbs (i.e., "be" verbs indicate existence; not action). Although the cue applies in the given ISU, the word "spell", its function as a thematic signal over time within this lesson phase potentially confounds students' opportunities to known and to demonstrate academic knowledge.

Finally, one finding identified in the in-depth microanalysis of Teacher C's lesson is reflected in a third theme line in Figure 6.7, e.g., the theme line about other words: "once", "bright", and "forward".

That is, there is evidence in Teacher C's lesson phase to suggest that academic themes are available within the academic task at hand that are, perhaps unrecognized but at the least, not signalled by the teacher. The teacher appers to be applying a "rule" regarding the function of the word within the context of the sentence. Exploration of the detailed maps of lesson the lesson construction indicated consistent, albeit tacit, application of this "rule" by the teacher. In each case, ISUs #65, #73, and #75, these words were contained in the given sentence and students attempted to apply the "'he/they' test" to make the words function as verbs. The teacher failed to make explicit a "rule" that she was apparently using for herself in identifying verbs; she also failed to recognize the implicit reasoning that students were using in their attempts to force verb status on subjects, adverbs, and adjectives.

This analysis of the thematic signals in Teacher C's lesson demonstrates the probabilistic nature of lessons for both teacher and students, and some possible sources of uncertainty and confusion. The examples provided suggest that students base their responses in lessons on rational consideration of signalled cues. Ability may not be the only factor that accounts for student performance; errors in participation and in demonstration of knowledge may stem from errors in communication. In this sense, errors in communication may include both incompletely signalled cues as well as faulty choices about which cues should be signalled.

Teacher D. The summary description of academic themes signalled in this lesson phase presents a sharp contrast in comparison with other lessons. As illustrated in Figure 6.8, the teacher "slots out" of the ordinary interaction pattern only once during the 41 instructional sequences. As described earlier, the academic task demand required students to apply the "rules of assimilated spelling" to a prefix and a base portion of the given word. These "rules" provided students with a basis for knowing when a double consonant is required for correct spelling, when the double consonant is not required, and what the consonant should be. Hence, academic themes were available within the demand structure; the teacher did not verbally signal these themes. Throughout the entire lesson, there was no mention of the techniques of "assimilated spelling." Instead, it appeared that students were either solely dependent on what they had perhaps read the day before in the workbook, or that they were required to correctly understand how to merge and spell the words by rote recognition and probabilistic guessing.

Summary. This examination of the teacher's contribution to the construction and continual negotiation of academic meanings suggests a patterned progression of differences related to the instructional effectiveness dimension. In brief, as teacher rank decreases, the frequency of themes signalled by the teacher also decreases. These themes contribute to students' opportunities for learning in that they provide cues, clues, and strategies to assist students in understanding the academic tasks and in demonstrating academic knowledge. They provide a portion of the conceptual scaffold, the support, and the structure upon which students are expected to reason, to ascertain what is academically appropriate in responding, and in general, to demonstrate academic competence.

The progression identified here suggests that at the highest level, an effective teacher signals relevant themes not only through direct "mini-lectures", but also through question-response sequences in which the questions build on earlier questions and/or responses and the interactions "cycle", overlap, and interlock. In this way, both teacher reasoning and student reasoning are made publicly available to all. For the academically effective teacher, the establishment of public, interactive opportunities to display thinking and reasoning enable the participants -- both teacher and students -- to continually monitor, examine, negotiate, modify, suspend, and re-examine an evolving framework that serves to guide appropriate academic participation. For the less academically effective teachers, severe limitations in student's opportuities to acquire and demonstrate academic competence have been identified. These include limitations in the relative number of themes signalled, the introduction of frame clashes into the evolving conceptual scaffold, and the failure to publicly signal themes that are either inherent within the structure of the task, or that are implicitly operational in the ways teacher and students are dealing with the academic task. For teachers and students in these less effective classrooms, the evolving conceptual scaffold that could serve to guide the construction and continuing negotiation of academic meanings is either elusive, lacking in rational consistency, or non-existent.

Notes

1. Teachers A and D are the same teachers considered in development of the descriptive models of lesson construction in the preceding chapter. These teachers were chosen for the present analysis as representative of extreme differences on the classroom management dimension, as well as exposure and non-exposure to the management training workshops.
2. This observation marks a contrast between findings from the microanalyses and findings in classroom observers' ratings on the normative management variables. Teacher A received less than the highest rank on the variable "signals appropriate behaviors"; she received the highest ratings in the entire sample of 16 teachers on all other management variables. One interpretation is that signals for appropriate behavior were subtle and not immediately obvious to the classroom observers. Also, it is apparent through the microanalyses that multiple signals about procedure were not necessary in Teacher A's classroom. That is, once set, the expectations functioned and instructional progression was maintained. This is not characteristic of lessons in comparison classrooms.
3. Content inclusion was identified through designation of discrete instructional sequence units (ISUs), each unit encompassing a set of topically or thematically related interactions. Each sequence is also defined by the central topic (e.g., the verb "build" in a

review of verb tenses). As topic changes in the evolving lesson, a new instructional sequence unit is designated (e.g., when the teacher moves on to "had", the next verb in the review exercise). Though limited to one central topic or topical thread, ISUs in all lesson phases, for each teacher, varied by length of time, and by number of interactive contacts. Interactive contacts were measuerd according to interaction units (IUs). The interaction unit, a more elemental unit in the system, consists of a sequence of tied or cohesive message units; discrete interaction units are designated on the basis of prosodic cues and the on social and conversational demands made and/or responded to by the participants.

4. These summary descriptions reflect only messages verbally stated by the teacher that contained academic content; procedural themes or messages related to the social participation demand structure were not included. Additionally, messages conveyed by the teacher that a student's response was correct or appropriate, with no further elaboration or statement of reasons, are not reflected in the summary map. This is not to say that messages about correctness are not important, or that they do not contribute to development of academic meanings for students. Rather, the summary maps represent a conservative estimate of the teacher's contribution to academic theme development, and the extent to which the teacher "slots out" of an ordinary interaction pattern to emphasize an academic point, to provide a rationale, or in some other way to support student understanding of the academic task at hand.

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Chapter 7

Learning "That" and Learning "How" in Research on Classroom Processes

One final analysis remains in the linked series that makes up this Final Report -- the comparison and contrast between the normative and descriptive models of classroom management. The normative model, used as the basis for the training study, is derived out of a process-product tradition of research on teaching (Dunkin & Biddle, 1974). The descriptive models were generated through the application of a sociolinguistic perspective on teaching/learning processes (Cazden, in press; Green, 1983) to the analysis of instructional conversations. Thus, the comparison between the models encompasses an exploration of the compatability of findings emerging from two alternative research traditions. There are possibly many ways in which theoretical frameworks are inseparable from their parent research traditions, just as findings are inextricably linked to the data on which they are based, (Edwards & Furlong, 1978). Throughout this work, the researchers have operated on a tenet that each of the various accounts would serve as a description, but certainly not the description of classroom management phenomena. Moreover, it was assumed that a collaborative merger of perspectives could provide an expanded view of effective and less effective management practices. This chapter therefore provides a juxtaposition of the alternative models in such a way that the expanded conception is possible. In turn, the expanded model provides a framework for a synthesis of selected findings.

Implementation of the normative training model has been shown to have effects on management practices (Chapter 2, this volume). Additionally, a strong link between these practices and student achievement gains has been documented (Chapter 3, this volume). A practical concern that motivated the comparison of models stemmed from an observation made by researchers in earlier studies (Emmer, Sanford, Clements, & Martin, 1983; Evertson, Emmer, Sanford, & Clements, 1983) that some teachers adopt prescribed management practices more readily and consistently than other teachers. Additionally, for some teachers, adoption of selected strategies makes a more marked difference in classroom practices than for others (Griffin, Hughes, & Martin, 1982; Chapter 2, this volume). It was reasoned that although the normative model identifies a series of variables associated with effective management, guidelines or descriptions about how these variables are to be orchestrated are not adequate. In other words, learning "that" certain strategies can make a difference is perhaps not a sufficient condition for understanding or for learning "how" management phenomena operate in practice. The in-depth focused explorations, conducted from the vantage point of the sociolinguistic perspective, were undertaken as a means of portraying management "models-in-use", thereby extending what could be known about the classroom management phenomena.

The Expanded Model of Classroom and Instructional Management

This synthesis is organized in line with the three central dimensions or phases of the normative model: planning, presenting (implementing), and maintaining (see Note 1). The various aspects of the three dimensions, as defined in the program of classroom management training, are reproduced in Figure 7.1. Early attempts at the linear juxtaposition of the normative model with the descriptive "models-in-use" proved unsuccessful. These efforts yielded a complex series of charts and tables that only served to obscure salient features of both models. A graphic configuration or representation was needed that could simultaneously a) preserve the traditional integrity of each model, b) reflect the expanded conception of the management phenomena that this linked series of analyses has produced, and c) serve as a framework to guide further inquiry on classroom processes. The expanded model of classroom and instructional management is depicted in Figure 7.2.

Insert Figures 7.1 and 7.2 about here

As illustrated, the expanded model consists of a collection of overlapping circles, each circle representing a single dimension (phase) of the normative model. A fourth dimension proposed here is integrated into the configuration although it is not an existing component of the

Figure 7.1 Central dimensions of the normative model for training teachers in effective classroom management.[a,b]

Effective classroom management requires planning before school starts.

1. Readying the classroom (planning use of space).
2. Developing rules for general behavior.
3. Developing rules and procedures for specific areas:
    a. Student use of classroom space and facilities.
    b. Student use of out-of-class areas.
    c. Student participation during whole class activities.
    d. Student participation in daily routines.
    e. Student participation during small group activities.
4. Deciding on incentives/consequences for appropriate/inappropriate behavior.
5. Planning activities for the first day of school.

Effective classroom management requires presenting (implementing) at the beginning of school.

1. Teaching the rules and procedures.
    a. Using explanation.
    b. Using rehearsal.
    c. Using feedback.
2. Teaching academic content.
3. Communicating directions and concepts clearly.

(Figure continues)

Figure 7.1 (continued)

Effective classroom management requires maintaining the management system throughout the year.

1. Monitoring for behavioral and academic compliance.
2. Acknowledging appropriate behavior.
3. Stopping inappropriate behavior.
4. Using consequences/incentives consistently.
5. Adjusting instruction for individual students/groups.
6. Keeping students accountable for work.
7. Anticipating special problems.

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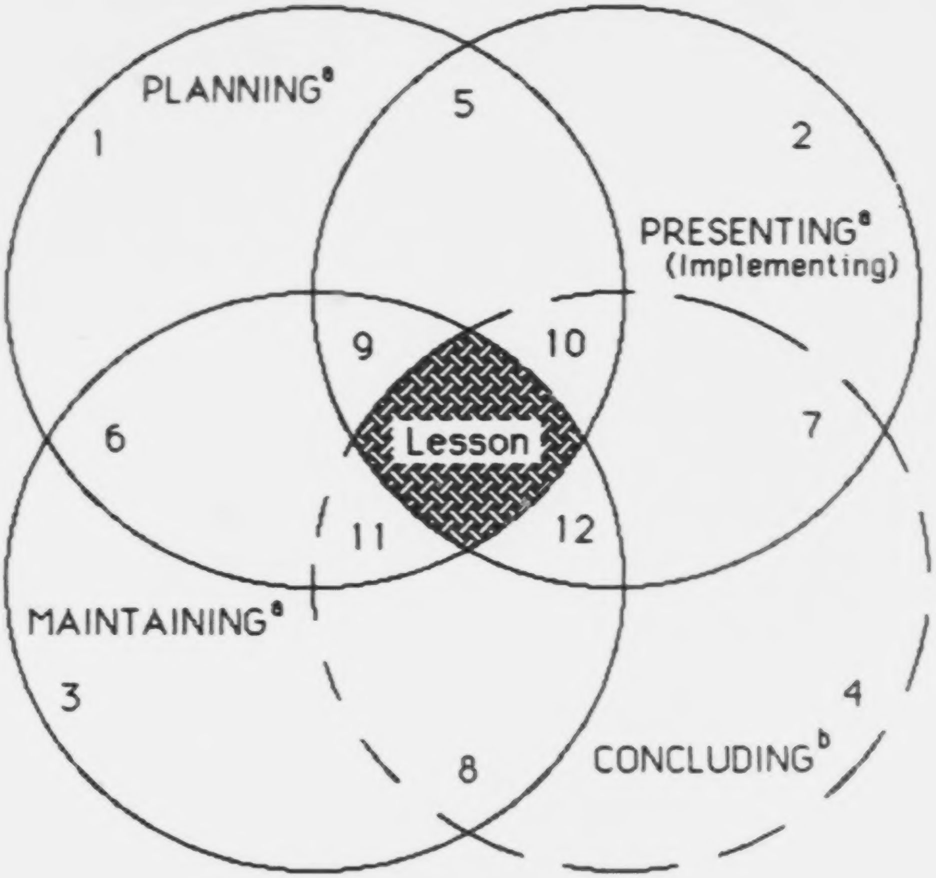
[a] Two components of the training model (see Table 1.1, Chapter 1) have been deleted: Classroom management is a component of the "Total Teaching Act", and "Effective classroom managers demonstrate certain skills". Both deleted components contain general features that are explicitly taken into account in the planning, presenting, and maintaining components.

[b] As used in organization of a program of training teachers in classroom management skills, this model is based on an assumption of prior knowledge of complementary instructional skills including: (a) selecting lesson objectives at the appropriate level of difficulty; (b) teaching to these objectives; (c) maintaining the focus of the learner; (d) using the principles of learning, i.e. motivation, reinforcement, retention, and transfer; and (e) monitoring and adjusting instruction.

Figure 7.2 The Expanded Model of Classroom and Instructional Management


PLANNING[a]
1
5
2
PRESENTING[a]
(Implementing)
9
10
6
Lesson
7
11
12
MAINTAINING[a]
3
4
8
CONCLUDING[b]

[a] Three dimensions of the normative model used in classroom management training include: Planning before school starts, Presenting (implementing) at the beginning of school, and Maintaining the management system throughout the year.

[b] Concluding is proposed as a fourth dimension of the model.

training model; "concluding" is enclosed in a (tentative) broken circle. The rationale for incorporating this fourth dimension is provided in the discussions that follow. Each sector of each circle within the model is identified by number to facilitate description and continuing analysis. Sectors #1, #2, #3, represent the normative model of classroom management training that served as the initial groundwork and theoretical context for the training study reported in Chapter 2 (this volume), as well as a portion of the context for all subsequent analyses.

An essential feature of this expanded model is that each of the dimensions at least partially overlaps each of the other three at given points. This permits due consideration of a central tenet of the sociolinguistic perspective on lesson construction. That is, classroom lessons are constructed through the dynamic interactions of teacher and students as they work together to meet instructional goals (Green, 1983). As such, lessons are not scripts that can be planned (sector 1), and then implemented in rote detail (sector 2). Rather, plans serve as entry frameworks that can guide the presentation (sector 5) of, for instance, "rules" and expectations for social and academic participation. Although plans may show what is intended, they generally fail to adequately portray what actually gets delivered or implemented (Green & Harker, 1983). Changes in plans occur throughout lessons as teachers orchestrate activity to meet student needs and to reach instructional goals. In this model, what gets implemented is represented in the central sector: the lesson. As such, lesson is mediated and/or influenced to varying degrees by the plans, the presentation or implementation of these plans, and the maintenance or continual monitoring required by teacher and students alike in order to know what is expected both procedurally and academically (sector 9).

And yet, lesson is not a simple, singular, or unitary phenomenon. Rather, the teacher's orchestration of activity (the "stuff" of which lessons are made) requires continual planning and adjustment of plans in light of "what" is being presented (sector 5), or "what" or "who" is being maintained or monitored (sector 6) at any given point in time. Furthermore, the planning or decisions made as a result of maintaining or monitoring (sector 6) may influence decisions about what is to be presented or signalled in subsequent interactions (sector 9), and ultimately, in the lesson. Finally, lesson is not static; it is continually evolving, unfolding, and under construction. To enter the central sector of the model, i.e. to "capture" the complex phenomenon of lesson, is to do so for analytic purposes only, as if to take a snapshot or to record an instructional conversation for retrospective analysis. Instruction and the improvement of instruction are complex, multi-faceted challenges. What the model provides is an analytic mechanism that can be entered at any of its given sectors for gaining understanding and for "learning how" classroom management phenomena operate in practice. The discussion that follows is organized in line with the central dimensions of the normative training model and particular aspects of these dimensions as depicted in Figure 7.1.

Representative findings are presented as a means of further illustrating the various sectors of the expanded management model.

Representative Findings

Planning before school starts. This dimension involves concepts of planning and "rules", and a focus on the first day of school as a generic type of lesson. As described above, planning is both a pre-active and interactive process. Based on the design of the in-depth focused explorations, little can be said about spatial configurations in the classrooms, or the qualitites or immediate effects of planning prior to the opening of school. This places previously anticipated limitations on conclusions about the planning sector of the expanded model. What can be addressed, however, is the nature of "rules" as they operate in classroom settings.

The existence of rules in the sample of observed classrooms can be traced to several sources. One of these is the management training workshops. In the comparisons between the trained and control group teachers, differences were found in the extent to which policies were described and "taught" to students at the beginning of the school year (e.g., sector 5) and further in the extent to which these signals remained "in place" and were adhered to by students and teacher alike (sector 9). Attribution of the difference to the training workshops is based on the general format of "rules" signalled on the first day of school; trained teachers presented and/or established class policies, school policies, and their own policies in a way similar to that demonstrated in the management training workshops. In contrast, a less effective classroom manager (Teacher D) continued signalling expectations of a similar sort up through at least the third month of the academic year. In this sense, rules are overtly signalled by the teacher (or not signalled) as a way of setting expectations for students about what is appropriate.

Another source can be identified in the sense that rules exist or operate as norms for participating in the everyday events of life in classrooms. In this sense, the rules are constructed through interactions, and just as lessons, they are dynamic evolving entities. There is ample evidence in the data collected for these analyses to suggest that both signalled rules and constructed norms function as a means for students to infer what is expected, both socially and academically. Furthermore, once expectations were set in a given lesson, students and teachers alike experienced difficulty when changes in expectations were necessary. This was true for both effective and less effective teachers. In Teacher A's (effective management and effective instruction) grammar review lesson in November, signalled expectations for student responses changed when, as the teacher explained, time was running out. Students failed to read the overtly signalled change and continued to volunteer alternative answers, i.e., they continued to follow the previously established expectations. This served to delay the teacher's stated preference for completing the review exercise in the remaining time. In the final lesson phase, the teacher further constrained students' opportunities to respond by simply reciting the correct answers for the last section of the test. These examples and others like them suggest that expectations set from the first day of school, and also from the early parts of daily lessons, become firmly established as guides for student participation. This points to the importance of exercising careful judgement about the kinds of signals communicated early in the school year and within the opening segments of individual lessons.

Knowing "that" rules should be signalled is not the same as knowing "how" rules function in the classroom setting. A third potential source of rules, this one essentially external, was identified in follow-up interviews with teachers almost two years after the observational data were collected. In each of the classrooms, a list of five or more rules was hand printed on construction paper and posted above a chalkboard. These rules ranged from "Bring your materials to class," to "No chewing gum." Questioning confirmed that the posters had not been in place during the year of the training study, but had been strongly recommended by a district administrator (who had not been directly involved in the management workshops) in the year following the training study. This respresents one of the several long-term effects of the program of classroom management training. What the opportunity for teachers to assemble and discuss "rules" provides is the chance to develop a shared language (c.f., Little, 1982). Developing a shared language enables teachers and other school personnel to articulate and to examine their expectations for students, what students are to "do" (or not do), and moreover, how students are to "be" in the classroom environments. Thus planning can potentially focus as much on matters of "studenting" as on matters of teaching. Furthermore, through the adoption of a shared language about teaching/learning processes, the subject matter of planning can focus on the kinds of tasks students are expected to engage in (e.g., thinking, problem solving, etc.) -- in the interests of improving "studenting" (Fenstermacher, in press; c.f., Doyle, 1983).

Presenting (implementing) at the beginning of school. This dimension entails the actual implementation of rules and procedures, teaching academic content, and communicating directions and concepts clearly, e.g., sectors 2 and 5 of the expanded model.

To teach rules and procedures is to share and fully disclose to students the expectations for what they are to do and how they are to accomplish the tasks set before them, both socially and academically. The microanalyses reveal that when teachers fail to signal rules or to orchestrate clear and complete expectations, students come forth to take up the slack. They do this by seeking procedural information, e.g., asking questions about what they are supposed to be doing (Teacher C's classroom: moderately effective management/less effective instruction), or by unilaterally contributing and establishing the structural parameters necessary for maintaining the on-going instructional event (Teacher D's classroom: less effective management/less effective instruction). In Teacher C's classroom, both teacher and students contributed to the establishment of the management structures; observers' ratings over a sample of lessons placed Teacher C above a natural break in the management rankings. Nonetheless, these students demonstrated no change in within-class achievement level groups over the school year. This suggests that classroom management is necessary -- but not sufficient -- for bringing about student achievement gains. In the extreme case of less effective management (Teacher D), it has been suggested that, sometimes, students "manage" procedural aspects of lessons; "getting through," however, is also not sufficient to bring about achievement gains.

Further explorations of the descriptive "models-in-use" were conductedin search of the teachers' unique contributions to lesson structure that could serve to explain differences in student achievement gains. These analyses focused on expectations signalled and orchestrated by teachers that were explicitly and exclusively related to the academic task demands and demand structures within lessons. Findings in these analyses relate to the teaching of academic content as a feature of the presenting (implementing) dimension of the normative training model. Patterns identified in the comparisons across teacher revealed a relatively tight, sequential phase progression in the academic demand structure in instructionally effective classrooms, and less structurally coherent academic progressions in less effective classrooms. Furthermore, the academically effective instructors managed to orchestrate a relative balance in the demands placed on students to interpret changes in their rights and obligations for appropriate participation, e.g., a balance between social and academic demand shifts. As teacher rank on the effectiveness dimension decreased, demands on students to interpret changes in complex social and procedural expectations increased -- to the demise of opportunities for focusing on academic tasks.

In regard to the construction and negotiation of academic meanings in classroom lessons, microanalyses revealed that the teaching of academic content is not content-free. Again a pattern of differences associated with the teaching effectiveness dimensions was identified. As teacher rank decreases, the relative number of verbally signalled content themes also decreases. These themes contribute to students' opportunities for learning in that they provide cues, clues, and strategies to assist students in understanding the academic task demand, in ascertaining what is academically appropriate in responding, and in general, in demonstrating academic competence. The academically effective teacher signalled relevant content themes through intermittent "mini-lectures" (generally less than 30 seconds in length), and through question-response sequences in which the questions were built on earlier questions and/or responses and the interactions "cycled", overlapped, and interlocked. The teacher provided explanations and rationales in her verbal signals, and demanded the same of students. In this way, both teacher reasoning and student reasoning were made publicly available to all. The establishment of these interactive opportunities to display thinking and reasoning provided opportunities for the participants -- both teacher and students -- to continually monitor, examine, negotiate, modify, suspend, and re-examine an evolving conceptual framework that serves to guide appropriate academic participation (sector 9 in the expanded model).

For the less academically effective teachers, severe limitations in students' opportunities to acquire and demonstrate academic competence were identified. These include limitations in the relative number of themes signalled, the introduction of frame clashes into the evolving conceptual framework, and the failure to publicly signal themes that are either inherent within the structure of the task, or that are implicitly operational in the ways teacher and students are dealing with the academic task. This finding suggests that the teaching of academic content is not content-free. For teachers and students in the less effective classrooms, the evolving conceptual scaffold that could serve to guide the construction and continuing negotiation of academic meanings was either elusive, lacking in rational consistency, or non-existent. This limited the extent to which students and teacher could maintain or monitor (sector 3 of the expanded model) academic aspects of the lesson under construction (sector 2 or 5 of the expanded model). Thus, in terms of the expanded model, teacher and students generally migrated to a peripheral point (sectors 2 and 5) and failed to enter into the dynamic quality of lesson potentially available in sector 9.

Maintaining the management system throughout the year. Reference to Figure 7.1 suggests that the various aspects of this dimension (sector 3 of the model) have to do with the teacher's monitoring of appropriate and inappropriate participation in classroom events, and further, the adjustment of instruction in order to maintain appropriate participation. Again, learning "that" a management system can or should be maintained is not the same as understanding or learning "how" management phenomena operate in practice. Findings brought forth from the in-depth focused explorations relate to the nature of disruptions or divergences in lessons, the responses to divergences demonstrated by teachers, and finally, what occurred as a result of these actions. A pattern of differences associated with the effectiveness dimensions suggested that, given similar lesson formats across classrooms, as teacher rank decreases, the relative frequency and duration of divergences from lesson goals increases.

First, in the sample of observations considered in the microanalyses, there was no evidence that disruptions in the rhythm and flow of classroom lessons were disruptive in the classic sense of student aggression, hostility, or deviance -- even in the less effectively managed lessons. Similarly, teachers did not respond to perceived disruptions by exercising threats or other overt displays of authority. This finding supports what Edwards and Furlong (1978) have suggested about power and authority relationships in classrooms. That is, the unequal status relationship between teacher and students inherent in the classroom context makes it unnecessary for teachers either to threaten, or by the same token, to explicitly describe in minute detail what is socially acceptable behavior.

Non-compliance with teachers' social expectations (e.g. the established norms about who may talk, when, where, about what, and for what purposes) resulted from lack of consistency in the way these expectations were signalled and/or orchestrated in the unfolding instructional conversations. Furthermore, of the potentially divergent messages, actions, or events that were verbally responded to by the teacher, not all matured into full-fledged divergences from the instructional theme. The difference was related to the nature of the teacher's response and the ways these responses functioned. In most cases, when the teacher focused primarily on the behavioral aspects of the event, or entered into dialogue with the divergent student(s) about the event, instructional progression was delayed. When the teacher's response to the potential divergence reflected an interest in returning to lesson goals and provided signals and cues about "how" this could be accomplished, instructional progression was not delayed. This suggests that what is needed to maintain lessons is consistent and continual monitoring of what is being signalled (sectors 2, 3, and 5 on the expanded model), what is occurring (sectors 2, 3, and 5), how events are being responded to by participants (sectors 2, 3, and 5), and what adjustments in instruction can be made (sectors 1,2,3, and 5) in light of anticipated consequences for the quality of interactions and the forward progression of the lesson (sector 9).

Concluding: A proposed fourth dimension. "Concluding" is suggested as an additional component of the normative training model and the expanded management model for several reasons (sector 4). First, the normative training model focuses primarily on the first day of school as a generic type of lesson, on the expectations for social and academic participation that are set in the early parts of the academic year, and on maintenance or continuation of those expectations over time.

Nonetheless, maintaining does not go on forever. Classroom events are anticipated, constructed, realized, and then concluded, hopefully with due attention to reflection and assessment of the meanings that these events have held for participants.

Little research has been done on lessons that make up the concluding days of the school year, or similarly on lessons that occur in close proximity to days of standardized testing. Follow-up interviews with teachers, which were conducted in early February approximately two years after the training study, revealed anticipation of up-coming district-wide tests. In one classroom, the dates of the testing were handwritten in large lettering (as if permanent) on an infrequently used chalkboard on the side wall of the classroom, in a way that signalled "coming attractions." The tests were to be given in early April, some two months later; there were no other visible signals of forthcoming events that loomed quite so large in this classroom. What this suggests is that classroom events are planned, implemented, and maintained or monitored, at least partially, in anticipation of the kinds of events that are to take place in the future.

At another level, the impact of a time dimension on lesson construction was evident throughout the sample of lessons observed, and across all classrooms. Teachers provided frequent rationales for pacing in their lessons, based on the amount of time that remained in the class period. In taking tests, the amount of remaining time was signalled periodically, even though the designation of the end of testing phases appeared to be within the control of the last person to complete the work. When homework exercises were assigned during final lesson phases, admonitions were delivered about how many minutes remained, and that students could not take the workbook home to finish the exercise. As described earlier in Teacher A's lesson (effective management and effective instruction), awareness of time in relation to lesson pacing and the length of the materials being reviewed also influenced lesson construction. The recommendation presented here is not to consider time or timing as isolated variables of high interest. Instead, focus could be directed toward learning "that" concluding lessons is a naturally occurring event in classrooms, and additionally, understanding or learning "how" conclusions _function_ in instructionally effective classrooms.

Notes

1. The normative training model is presented in Table 1.1, Chapter 1. The synthesis presented in this chapter does not specifically address the first two components of the model: "Classroom management is a component of the "'Total Teaching Act'"; and, "Effective classroom managers demonstrate certain skills". As reference to Table 1.1 confirms, both of these components contain general features that are explicitly taken into account in the planning, presenting, and maintaining components.

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Appendices A & B

for

Final Report

EFFECTIVE CLASSROOM MANAGEMENT AND INSTRUCTION: AN EXPLORATION OF MODELS

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DRAFT

APPENDEX A

CLASSROOM MANAGEMENT MODEL

INSTRUCTOR AND OBSERVER TRAINING MANUALS

STATE BOARD OF EDUCATION
ARKANSAS

Arkansas Department of Education
General Education Division

Don R. Roberts, Director

Management and Development

Morris L. Holmes, Associate Director

Arch Ford Education Building
Capitol Mall
Little Rock, Arkansas

1983

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PREFACE

CLASSROOM MANAGEMENT MODEL

(A Decision Making Tool)

This Classroom Management Model is a component of the Total Teaching Act. Its development was an outgrowth of Arkansas educators' experience with the Program for Effective Teaching (PET).

The model is designed to provide additional insights and training to help improve instruction and learning through a more efficiently managed classroom. It is a tool that can be used by classroom teachers and instructional supervisors. Educators should think of this model as sequentially organized strategies to help the teacher to improve decision making skills. The model in no way should dictate teaching methodology and style.

The content of this Instructor Training Manual is based on the research findings of Dr. Carolyn Evertson, who presently makes her home in Cove, Arkansas. Dr. Evertson's research, concerned with classroom organization and effective teaching, was done at the Research and Development Center for Teacher Education, the University of Texas at Austin from 1977-1981.

During the fall of 1982, the Arkansas Department of General Education, Division of Management and Development and the Texarkana, Springdale, Brookland, Russellville, North Little Rock and Dumas school districts conducted a classroom management research project, utilizing Dr. Evertson's three phases of classroom management: 1) planning 2) presenting and 3) maintaining.

Each school district selected staff members to serve as instructors and classroom observers. Classroom teachers from each district were selected as participants in experimental groups and teachers were also selected as participants in control groups.

The participants represented both the elementary and secondary levels. One to two PET instructors from each participating district were trained to teach the Classroom Management Model to participants in the experimental groups and two to four PET observers were trained to observe and rate classroom behavior for both the experimental and control groups.

Results of the research project indicated that participants in the experimental groups had significantly better managed classrooms when compared to participants in the control groups. The results also indicated that the second training activity (follow-up training) in classroom management for the experimental groups produced additional gains. Teachers described objectives more clearly, had better general procedures, were more consistent in managing student behavior and monitored more effectively.

This manual was developed as a guide for use by instructors in planning and conducting classroom management training sessions. The design of the manual should encourage instructors to plan for using as much or as little of the suggested resources and activities as needed to fit their own training style.

This Classroom Management Training Manual refers to several resources. It is essential that each participant be provided a copy of either Organizing and Managing The Elementary School Classroom or Organizing and Managing The Secondary School Classroom for use during training.

Time guidelines for training:

- Three days to train PET instructors to become classroom management instructors (classroom observation training is included)
- One day to train PET observers to become classroom management observers
- Classroom Teachers
    - Teachers should receive two days of input training prior to the opening of school.

(The emphasis is on prevention rather than remediation.)

- Observers/conferencers should be in place to begin classroom observations no later than the third day of school. (Ideally observation should begin on the first day of school.) Each teacher should be observed and conferenced twice within the first three weeks of school.
- At the end of the third week of school, teachers are to receive two-four hours of follow-up instruction, followed by one additional observation/conference. At this point, the building administrator should establish a system for ongoing observation/supervision.

*This number of teachers included in the initial training must be determined by the district's ability to perform training prior to the first day of school, to do two observations and conferences during the first three weeks of school, and to provide follow-up instruction at the end of the first three weeks of school, followed by one observation/conference. (This system is an effective way to begin.)

This Classroom Management Model is geared to prevent classroom problems, and ideally teachers should be trained prior to the opening of school. However, it is reasonable to assume that you will have to train throughout the school year, in light of the fact that some superintendents will not be able to include all teachers prior to school opening.

Because a great deal will be learned as these manuals are used as training tools, this copy of the manuals is in the draft stage. Users will continue to learn more about classroom management and will want to make modifications in light of new information and training practices.

ACKNOWLEDGMENTS

The development of this manual was made possible by the efforts and cooperation of many people from June of 1982 through June of 1983.

The following superintendents gave approval to allow the project to be conducted in their school districts:

Name	School District
Dr. Leslie Carnine	Texarkana
Jim Rollins	Springdale
George Miller	North Little Rock
Harold Tidwell	Dumas
Leon Christenberry	Brookland
Harvey Young	Russellville

The following PET instructors were trained and provided the instruction for the classroom teachers who participated in the experiment:

Name	School District
Ross Beck	Texarkana
Dr. Patricia Jackson	Springdale
Esther Crawford	North Little Rock
Lois McHan	Dumas
Barbara Layne	Brookland
Patsy Fleniken	Russellville

The following PET instructors were trained and performed classroom observation for both the experimental and control groups:

Name	School District
Janie Pumphrey & Margaret Edwards	Texarkana
Hartzell Jones & John Dunlap	Springdale
Dr. Jamie Foster & Diane Zook	North Little Rock
Don McHan, Polly Newman & Gene Wert	Dumas
Geraline South & Leon Christenberry	Brookland
Loretto Bonner & Dr. Steve Floyd	Russellville

Special thanks to Dr. Carolyn Evertson who served as primary researcher for the project. Unfortunately, the Department only had a small amount of money to pay Dr. Evertson for her travel and work, yet she gave her time. We are so fortunate to have Dr. Evertson living in Arkansas.

Special thanks to the classroom management instructors who came to Little Rock several times for training and planning. Thanks also to the classroom management observers who came to Little Rock for training and who spent hours and hours observing and recording classroom management transactions. Their difficult time lines required that they began observations the first day of school and throughout the project.

An extra measure of appreciation is due classroom teachers who agreed to participate in the project. These teachers had observers in their classrooms beginning the first day of school. The participants in the experimental groups came in early from summer vacations to receive training.

A special measure of appreciation is reserved for Loretto Bonner from Russellville and Dr. Jamie Foster from North Little Rock. They, along with Dr. Evertson, put together the Observer's Manual for the Classroom Management Model. They made several trips to Little Rock without pay.

This Instructor Classroom Management Training Manual was put together by Esther Crawford from North Little Rock, Patsy Fleniken from Russellville and Ross Beck from Texarkana.

In addition to participating in the above activities, Esther, Patsy and Ross spent many days at the Department from January through May, including several Saturdays. They did the work with no pay. They have invested their time and commitment to the growth of this model. They will be responsible for the initial teaching of the model to 25 PET instructors.

Recognition is due Dr. Roy Wood, former state PET coordinator and Anne Weems, who is presently state PET coordinator.

MANUAL

FOR

CLASSROOM MANAGEMENT INSTRUCTION MODEL

INSTRUCTOR TRAINING MANUAL

Topic	Instructors' Resources	Suggested Activities
I. Classroom Management Overview	Appendix: "Total Teaching Act Chart" (1)	Discuss the Total Teaching Act and stress that classroom management is a component.
	Appendix: Synopsis of research on "Pupils Expectations of Their Teachers" by Roy Nash (2)	
	Video-tape by Carolyn Evertson	
	Appendix: "Characteristics of Effective Classroom Managers" (3)	
	Appendix: "Introduction to the Three Phases of the Classroom Management Training Model" (4)	Present the three phases of the Classroom Management Training Model: 1. Planning 2. Presenting 3. Maintaining.
II. Planning		
A. Use of Space	Organizing and Managing the Elementary School Classroom (hereafter referred to as Elementary Manual), pages 11-20	
	Organizing and Managing the Secondary School Classroom (hereafter referred to as Secondary Manual), pages 5-14	
		Have participants draw diagrams of their current or desired room arrangements.

Topic	Instructors' Resources	Suggested Activities
	Appendix: "Guidelines for Room Arrangement" (5) "Model of an Elementary Classroom" (6) "Model of a Secondary Classroom" (7)	Have participants use these three resources as a point of reference as they analyze and discuss their room arrangements.
	Checklists: "1.1—Classroom Readiness" and "1.2—Essential Questions for the First Few Weeks," Elementary Manual, pages 21-26 "1—Preparing the Classroom," Secondary Manual, page 15	
B. Rules and Procedures	Elementary Manual, pages 27-44 Secondary Manual, pages 17-34	
	Appendix: "Guidelines for Discussing Planning Rules and Procedures" (8) "Planning Rules and Procedures (9)	
		Have participants brainstorm to identify all areas in their school environments which require the students to learn and use specific procedures. Participants can use these lists to identify procedures that have been problem areas in the past.

Topic	Instructors' Resources	Suggested Activities
	Appendix: "Guidelines for Room Arrangement" (5) "Model of an Elementary Classroom" (6) "Model of a Secondary Classroom" (7)	Have participants use these three resources as a point of reference as they analyze and discuss their room arrangements.
	Checklists: "1.1—Classroom Readiness" and "1.2—Essential Questions for the First Few Weeks," Elementary Manual, pages 21-26 "1—Preparing the Classroom," Secondary Manual, page 15	
B. Rules and Procedures	Elementary Manual, pages 27-44 Secondary Manual, pages 17-34	
	Appendix: "Guidelines for Discussing Planning Rules and Procedures" (8) "Planning Rules and Procedures (9)	
		Have participants brainstorm to identify all areas in their school environments which require the students to learn and use specific procedures. Participants can use these lists to identify procedures that have been problem areas in the past.

Topic	Instructors' Resources	Suggested Activities
	Checklists: "2.1—Subjects Requiring Rules or Procedures for Student Behavior," Elementary Manual, pages 51-56 "10.1—Accountability," Elementary Manual, page 135 (1 a-g) and page 136 (4 a-c) "2—Rules and Procedures," Secondary Manual, pages 41-46 "3—Accountability," Secondary Manual, page 61 (1 a-i) and page 63 (4 a-c)	
		Have participants make a list of procedures they will teach their students.
	Appendix: "Guidelines for Writing Rules" (10)	Have participants write three to six tentative rules for student behavior. (These are in addition to the procedures.)
	Case Study: "C—Teaching Procedures and Rules," Elementary Manual, pages 45 and 46	Have participants read the case study and identify rules and procedures in the teacher's class.
C. Consequences for Appropriate and Inappropriate Behavior	Elementary Manual, pages 57-64 Secondary Manual, pages 67-78	
	Elementary Manual, pages 60 and 61 Appendix: "Suggested Consequences" (11)	Have participants read the lists of positive and negative reinforcers and add other reinforcers that require little or moderate effort.

Topic	Instructors' Resources	Suggested Activities
	Case Study: "D—Examples of Incentives and Rewards," Secondary Manual, pages 79 and 80	Have participants read the case study to launch a discussion of incentives and rewards.
	Reinforcement Theory from Program for Effective Teaching	Briefly review.
		Have participants write possible consequences for the rules they have written.
	Case Studies: "E—Consequences—A Nearly Invisible System," "F—Consequences—A Moderate System," and "G—Consequences—A Complex System," Elementary Manual, pages 65 and 66	Have participants identify the common characteristics of these effective teachers.
D. Beginning of School	Elementary Manual, pages 73-78 Secondary Manual, pages 81-92	
	Appendix: "Guidelines for Planning Beginning of School Activities" (12)	
	"Beginning of School Activities" (13)	
	Case Studies: "J—First Day, Primary Grade," "K—First Day, Intermediate Grade," and "L—First Day, Upper Grade," Elementary Manual, pages 79-88	Have participants analyze and discuss case studies.
	"E—First Day, Activities in a Math Class" and "F—First Day, Activities in an English Class," Secondary Manual, pages 93-100	

Topic	Instructors' Resources	Suggested Activities
	Motivation and Retention Theories from Program for Effective Teaching	Relate the use of the variables of motivation and retention to effective classroom management.
	Checklist: "5.1—Things to Do or to Have on Hand the First Day of School," Elementary Manual, page 89	
		Divide participants into small groups to develop lists of beginning of school activities.
III. Presenting		
A. Teaching Rules and Procedures Through the Proper Use of PET Content	Elementary Manual, pages 67-70	
	Information on Task Analysis from Program for Effective Teaching	Relate task analyzing academic skills to task analyzing rules and procedures.
	Lesson Line from Program for Effective Teaching	Relate the use of the lesson line to teaching rules and procedures. Model the teaching of a simple rule or procedure. Have participants plan a short lesson for presenting a rule or procedure. Have some of these presented and analyzed.

Topic	Instructors' Resources	Suggested Activities
	Elementary Manual, pages 68 and 69 Appendix: "Presenting Rules and Procedures" (14)	Compare these terms to PET terminology: 1. Explanation 2. Rehearsal 3. Feedback
	Appendix: Case Studies: "H—Teaching a Procedure" (15) "I—Teaching a Procedure" (16)	Have participants read and analyze the case studies. Evidence of the teachers' use of PET elements may be labeled and underlined.
	Elementary Manual, pages 71 and 72 (These are the same case studies (H and I). The instructor may wish to change the labels under comments to PET terminology.)	Have participants compare their analyses with these.
	Appendix: "Examples of Questions That May Arise in Reference to Case Studies H and I" (17)	
B. A View of the Beginning of School	Video tape of The First Day of School: Effective Classroom Management in the Elementary School, produced by the Association for Supervision and Curriculum Development (ASCD) in collaboration with the Austin Independent School District. Available from: Association for Supervision and Curriculum Development, 225 North Washington Street, Alexandria, Virginia 22314. Appendix: "Guidelines for Using the Video Tape, The First Day	Have participants view and discuss the video tape.

Topic	Instructors' Resources	Suggested Activities
	of School: Effective Classroom Management in the Elementary School" (18)	
	"Outline of Introductory Comments" (19)	
	"Viewing Guide for The First Day of School: Effective Classroom Management in the Elementary School" (20)	
	Other video tapes, The Beginning of School in an Elementary Classroom and The Beginning of School in a Secondary Classroom, are available through Arkansas Department of Education (Management and Development Division)	
C. Instructional Clarity	Elementary Manual, pages 137-142 Secondary Manual, pages 123-130	
	Elementary Manual, pages 138 and 139 Secondary Manual, pages 123 and 124	Have participants read and discuss the examples dealing with instructional clarity.
	Elementary Manual, pages 139-141 Secondary Manual, pages 126-128	Discuss the suggestions for communicating clearly.
	Case Study: "T—Clarity of Instruction," Elementary Manual, pages 143 and 144	Have participants read and analyze the examples. They may then identify characteristics that contribute to clearer instruction.

Topic	Instructors' Resources	Suggested Activities
	Case Study: "I—Poor Clarity," Secondary Manual, pages 131-134	Have participants read the descriptions and comments given for examples of poor clarity. Participants may then give their own suggestions for making the examples clearer.
	Appendix: "Problem—Giving Directions" (21) "Problem—Giving Instructions" (22)	Have participants read the problem/s and generate suggestions for improving clarity. (Specific suggestions are provided for the instructor's use.)
IV. Maintaining Good Learning Environments		
A. Student Accountability	Elementary Manual, pages 127-132 Secondary Manual, pages 47-54	
	Appendix: "Steps in Maintaining Student Accountability for Work" (23)	Discuss the six accountability steps. Point out that effectiveness in keeping students responsible for work requires clear teacher communication of expectations, directions, and assignments.
	Appendix: "Examples of Accountability Systems" (24)	After participants read and discuss the "Examples of Accountability Systems," have them share information about other systems that help students to be responsible for and keep track of their work.

Topic	Instructors' Resources	Suggested Activities
	Case Studies: "R and S—Maintaining Student Responsibility for Work," Elementary Manual, page 133 "B—An English Class Accountability System" and "C—A Math Class Accountability System," Secondary Manual, pages 55-60	Have participants analyze and discuss the case studies.
	Checklists: "10.1—Accountability," Elementary Manual, pages 135 and 136 "3—Accountability," Secondary Manual, pages 61-66	
B. Monitoring and Adjusting	Monitor and Adjust from Program for Effective Teaching	
1. Monitoring	Elementary Manual, pages 103-106 Secondary Manual, pages 103-105	
	Appendix: "Monitoring Tips" (25)	Read and discuss the tips.
2. Adjusting	Reinforcement Theory from Program for Effective Teaching	
a. Acknowledging Appropriate Behavior		Emphasize the importance of developing a schedule for positive reinforcement of appropriate behaviors.
b. Stopping Inappropriate Behavior	Elementary Manual, pages 107 and 108 Secondary Manual, pages 105-108	

Topic	Instructors' Resources	Suggested Activities
		Review negative reinforcement theory.
		Emphasize the consistent use of consequences.
	Appendix: "Simple Ways to Handle Inappropriate Behavior" (26)	Read and discuss.
	Appendix: "Ginott's Vignettes on Discipline" (27)	Read and discuss.
	Case Studies: "N—Failure to Stop Inappropriate Behavior Quickly" and "O—Stopping Inappropriate Behavior Quickly," Elementary Manual, pages 109-112	Read and discuss.
	Appendix: "Problem—Students Calling Out Responses" (28) "Problem—Improving Class Behavior" (29)	Have participants read the problems and generate suggestions for dealing with the inappropriate behaviors. (Some specific suggestions are provided for the instructor's use.)
C. Organizing for Instruction	Elementary Manual, pages 113-122 Secondary Manual, pages 137-168	
	Publication: Time on Task, published by American Association of School Administrators. Available from: Publications Fulfillment, AASA, 1801 North Moore Street, Arlington, Virginia 22209.	The instructor should present key concepts of managing for increased learning time.

Topic	Instructors' Resources	Suggested Activities
	Appendix: "Adjusting Instruction" (30) "Small Group Instruction" (31)	Read and discuss.
	Case Studies: "P—Introducing Small Groups," Elementary Manual, pages 123 and 124 "L—Using Small Groups," Secondary Manual, pages 171 and 172	After a discussion of the case studies, have participants share ways to organize small group instruction in their classrooms.
	Appendix: "Problem—Managing Grouped Instruction" (32) "Problem—Heterogeneous Classes" (33)	Have participants read the problems and generate suggestions for improvement. (Some specific suggestions are provided for the instructor's use.)
	"Some Problems Frequently Occurring in Transitions," Secondary Manual, pages 146 and 147	Read and discuss.
	Appendix: "Problem—Transitions" (34)	Have participants read the problem and generate suggestions for improvement. (Some specific suggestions are provided for the instructor's use.)
	Appendix: "Appropriate Pacing" (35)	Read and discuss.
D. Strategies for Potential Problems	Elementary Manual, pages 91-100 Secondary Manual, pages 109-114	

Topic	Instructors' Resources	Suggested Activities
		Have participants brainstorm about potential problems that they may encounter in their classrooms. Compare their potential problems with those listed in the Elementary Manual, pages 92-100, and Secondary Manual, pages 109-114. Discuss the strategies for dealing with the problems. Plan strategies for the problems that were cited by participants which were not included in the manuals.
	Case Studies: "M—Fighting," Elementary Manual, pages 101 and 102 "H—Poor Maintenance of the Management System," Secondary Manual, pages 119-122	Read and discuss.
V. Closure		

APPENDICES

TOTAL TEACHING ACT

KNOWLEDGE OF CONTENT	PLANNING SKILLS
SELECTION & USE OF APPROPRIATE MATERIALS	CLASSROOM MANAGEMENT SKILLS
HUMAN RELATION SKILLS	INSTRUCTIONAL SKILLS

KNOWLEDGE OF HUMAN GROWTH & DEVELOPMENT

"Pupils Expectations of Their Teachers," by Roy Nash

Study carried out in a Scottish school where children were asked to sort teachers they "got on with" vs. those they did not. Six constructs emerged:

1. Keeps order - unable to keep order: Teachers should be able to keep order. Pupils who were well behaved considered that teachers should keep the noisy ones quiet. The noisy children also believed that teachers should keep them quiet. These children commonly blamed the teacher for 'being soft' and failing to keep them under control. Morrison and McIntyre (1969) state the teacher who thinks he can opt out of this requirement of the job is likely to become disillusioned. Without checks the class can become so rowdy that only wholesale repression will suffice to quieten. . . a repression for which he will not gain respect since pupils will simple believe that he should have been more strict in the first place.

2. Teaches you - doesn't teach you: The teacher is expected to teach well-defined and specific subjects. These children tend not to regard discussion as real work: They do not think it demands an essential part of the teacher's skills and they feel they learn little from it. This suggests that the teacher who attempts to encourage discussion, and strives to break down the barriers between subjects, needs to be careful to give the impression that she/he is still 'learning' them 'things.'

3. Explains things - doesn't explain things: Children do expect to be helped and to have difficulties explained to them. Specifically, they expect the teacher to be patient and not to shrug off his teaching responsibilities by telling them to work things out for themselves when they ask for help. The children feel that the teacher is employed to teach. If he does not they think the worse of him for that.

4. Interesting - boring: Pupils appreciate the teacher who can make his lessons flow and knows how to put the subject across in a way that makes sense. They do not like the teacher who continually interrupts the lesson to put what often appear as disruptive questions. Lessons which are disturbed and difficult to understand are perceived as boring. Pupils' perceptions of their teachers as boring alter their behavior and because pupils' behavior changes so does that of the teacher. If a teacher's lessons are always the same the pupils become bored, therefore they talk or mess about, the teacher interrupts the flow of the lesson to quiet them, exhortations prove ineffectual and students perceive her/him as 'soft'.

5. Fair - unfair: He should give you a second chance or a fair warning. But he should be strict. He should allow a certain amount of quiet talking not complete silence during the whole lesson. He should not joke then punish students for laughing. He should not pick on pupils or have favorites. The novice teacher can run afoul by giving too many warnings and failing to take action until too late. The action then may be seen as oversevere. Nor is it fair to punish the offender unless all others are equally punished. These are almost impossible conditions for the beginning teacher especially if he thinks that ignoring initial instances of misbehavior is a good way of deterring further instances. IT IS NOT.

6. Friendly - unfriendly: Friendliness is something of a bonus. Students do not seem to expect it, but are grateful when they do receive it. The teacher most liked is quiet and friendly and can talk easily with them and share occasional jokes. Many children become easily upset by the shouting which they hear not only from the overstrict domineering teacher, but from novice teachers. Although it can be argued that it is the students' exploitation of the novice teacher's inexperience that provokes the loud reactions, pupils still blame the teacher.

EFFECTIVE CLASSROOM MANAGERS

1) PLANNED CLASSROOM PROCEDURES AND RULES CAREFULLY AND IN DETAIL
2) SYSTEMATICALLY TAUGHT STUDENTS PROCEDURES AND EXPECTED BEHAVIORS
3) MONITORED STUDENT WORK AND BEHAVIOR CLOSELY
4) DEALT WITH INAPPROPRIATE BEHAVIOR QUICKLY AND CONSISTENTLY
5) ORGANIZED INSTRUCTION TO MAXIMIZE STUDENT TASK ENGAGEMENT AND SUCCESS
6) COMMUNICATED DIRECTIONS AND EXPECTATIONS CLEARLY

INTRODUCTION TO THE THREE PHASES OF CLASSROOM MANAGEMENT TRAINING MODEL

Key emphasis:

-Planning
-Presenting
-Maintaining

Effective classroom management places an emphasis on prevention rather than on remediation. Good managers are successful in preventing problems from arising rather than for special skills in dealing with problems once they occur. Their success comes from using a systematic approach which includes: planning and preparing before school starts; presenting and establishing expectations and procedures and routines at the beginning of school; and maintaining these through consistently reinforcing appropriate behavior and providing students with carefully chosen, well-prepared academic activities that engage their attention and effort.

This model is intended to be a decision-making model which emphasizes planning ahead. The examples and prescriptions provided here are not intended to be all inclusive. It is hoped that as practitioners begin to plan, present and maintain a good instructional system, they will also generate their own options and procedures to fit their unique situations.

Guidelines for Room Arrangement

KEYS TO GOOD ROOM ARRANGEMENT

High traffic areas are free of congestion.

Students are always visible to the teacher.

Storage space and necessary materials are readily accessible.

Students can easily see instructional displays and presentations.

AVOID UNNECESSARY CONGESTION IN THE FOLLOWING AREAS:

Group work areas, centers and stations

Pencil sharpener and trash can

Bathrooms, sink and water fountain

Bookshelves and storage areas

Students' desks

Teacher's desk

TIPS FOR ARRANGING FURNITURE

1. Make sure all students can easily see:

   You, when you are presenting information

   Chalkboards

   Overhead projector screen

   Instructional displays
2. Keep in mind potential distractions such as:

   Windows and doors

   Animals or other interesting displays

   Small group work areas
3. Leave plenty of room around student desks so that you can get to each student when monitoring.
4. Locate your desk, work area and instructional areas where you can see all of the students all of the time. Avoid placing centers and work areas in "blind corners" where you will not be able to monitor adequately.
5. Plan to seat students who need extra help or attention close to where you will be most of the time.

6. If you must use tables or desks with inadequate storage space, you will want to have "tote trays" or boxes for student belongings and materials. These should be easy for students to get to, but out of the way.

7. Even if other arrangements are to be used later in the year, consider placing student desks in rows facing the major instructional areas at the beginning of the year. This minimizes distractions for the students and allows the teacher to monitor behavior more readily and to become familiar with individual students' work habits.

STORAGE SPACE

* Place instructional materials that you will need where they are easily accessible to instructional areas.

* Include adequate, convenient space for students' coats, lunch boxes, show-and-tell items, and materials.

* Find easily accessible shelves on a bookcase for those everyday books and materials that will not be kept in student desks.

* Place long-term, seldom-used or special occasion items at the back of cupboards, on top of cabinets, or out of the room, if possible.

OTHER THINGS TO CONSIDER

1. Plan a particular location, easily seen by all students, where you will post assignments for the day (or week, if possible). This can be done on the chalkboard, a bulletin board, poster on a wall, large tablet, or individual assignment sheets.

2. Check all electrical equipment (e.g., overhead projector, record player, movie projector) to be sure it is working and that you know how to use it, before using it in class. Be sure a plug is within easy reach, or have a sturdy extension cord available. Plan a space to post instructions for the use of complicated equipment.

3. Wall space and bulletin boards provide extra areas to display rules, procedures, assigned duties, calendar; schedule, student work and extra credit activities. In addition, ceiling space can be used to hang mobiles, decorations, and student work, and windows can be used for displays, decorations, and student work.

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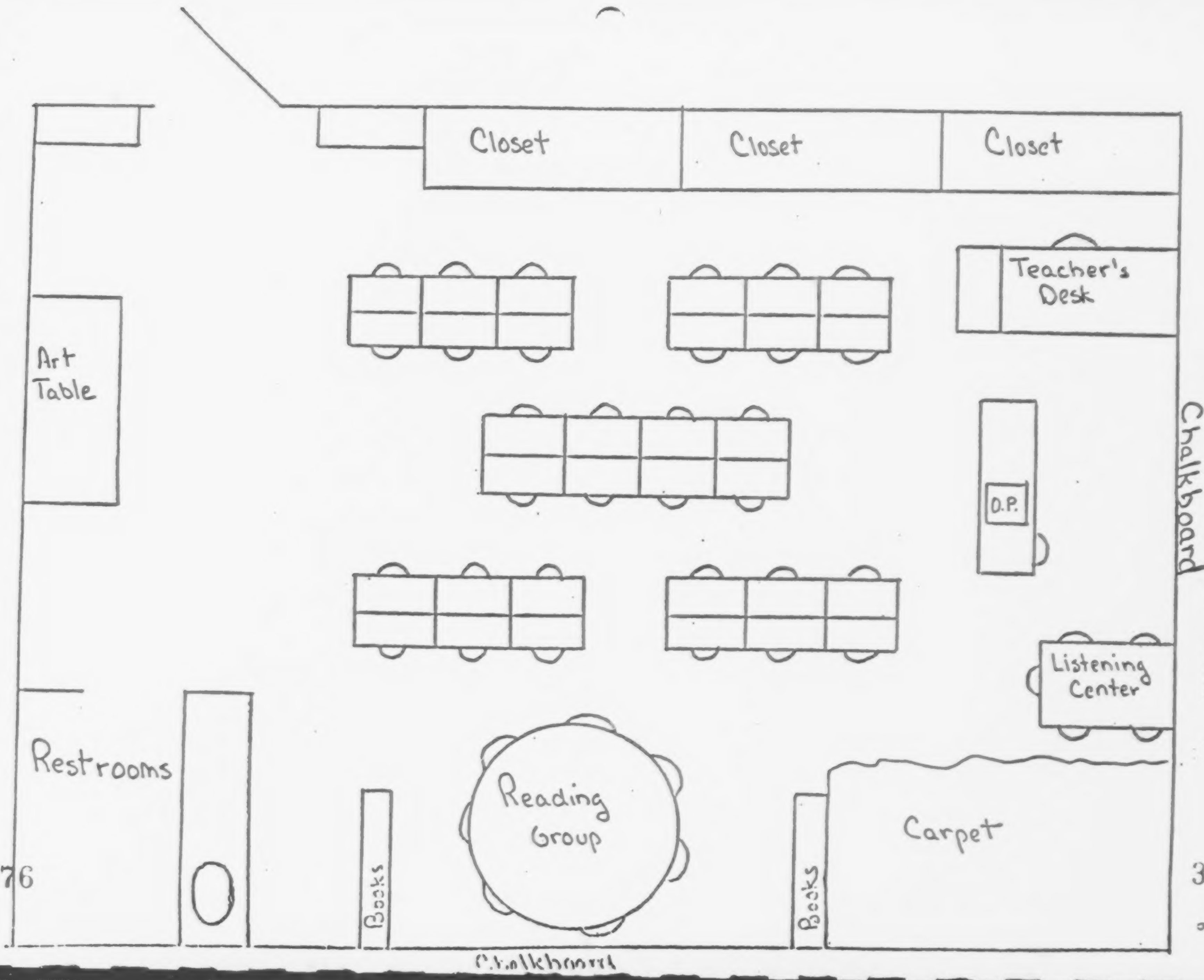
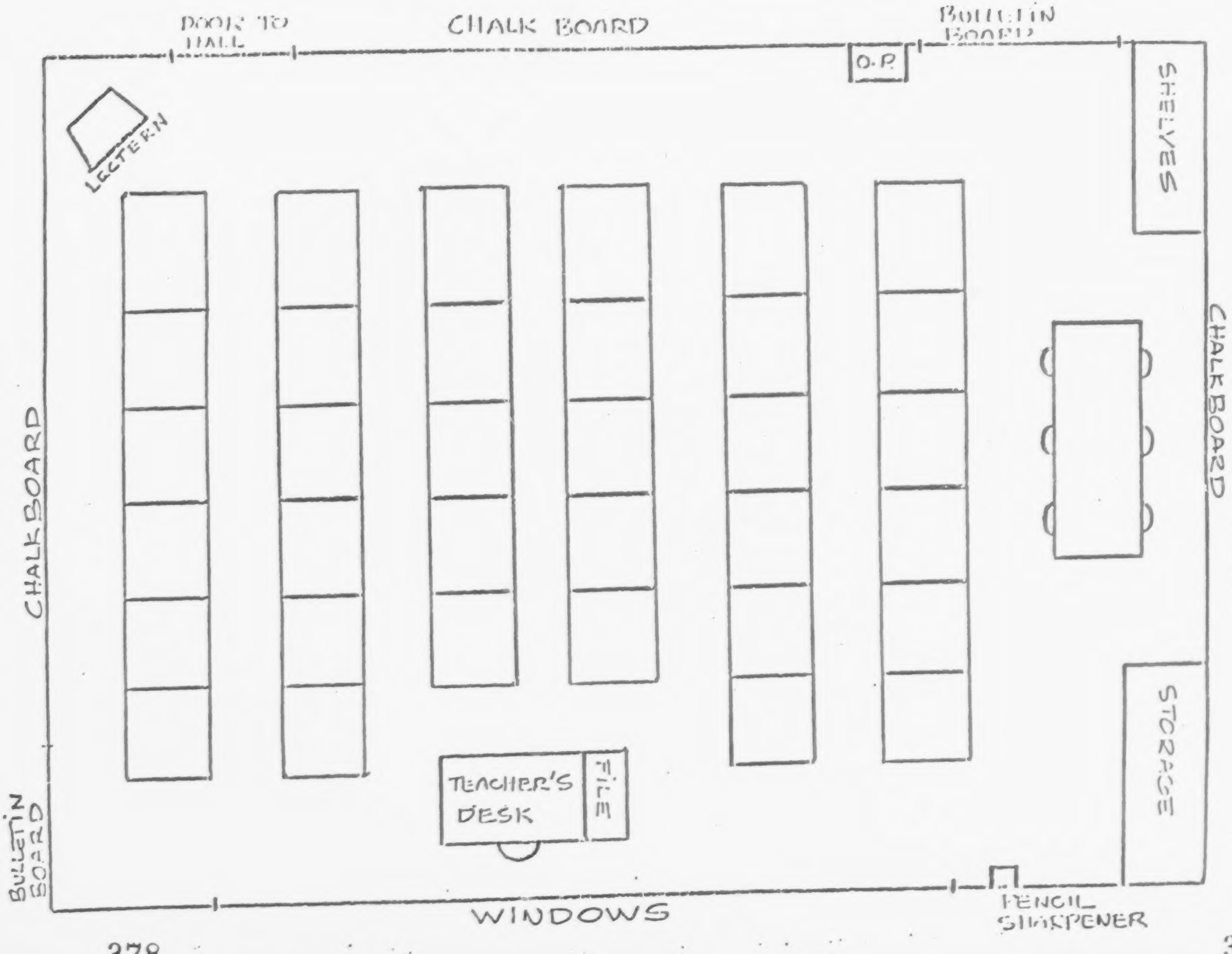

Closet
Closet
Closet
Teacher's Desk
Art Table
O.P.
Chalkboard
Listening Center
Restrooms
Reading Group
Carpet
Books
Books
Chalkboard

MODEL OF AN ELEMENTARY CLASSROOM


DOOR TO HALL
CHALK BOARD
BULLETIN BOARD
O.P.
SHELVES
LECTERN
CHALKBOARD
CHALKBOARD
TEACHER'S DESK
FILE
STORAGE
BULLETIN BOARD
WINDOWS
PENCIL SHARPENER

MODEL OF A SECONDARY CLASSROOM

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GUIDELINES FOR DISCUSSING PLANNING RULES AND PROCEDURES

Establishing an effective system of classroom rules and procedures requires two phases: a) Prior to the beginning of school, it is necessary to decide what behaviors are acceptable and unacceptable in the classroom, to identify rules and procedures that will be needed to maintain appropriate behaviors, and to choose a set of rules and deterrents, or penalties. b) When school begins, it is necessary to teach rules and procedures systematically and consistently enforce them. The outline entitled "Planning Rules and Procedures" points out the steps for planning and teaching rules and procedures, emphasizing the steps used at the beginning of the school year. These steps can also be used in revising rules and procedures, should problems arise. Step 1 emphasizes the importance of recognizing what is acceptable and unacceptable behavior in the school and classroom. Step 2 contains a long list of areas for which procedures are needed in most classrooms. This list is not meant to be exhaustive. Additional procedures might be required for particular grade levels or settings. Step 3 refers to the rules teachers use for their classrooms. The statements in this step imply that the teacher should choose the rules and present them to students as a "fait accompli."

The research indicates that it is important for teachers, rather than students, to identify specific rules or at least specific areas that require rules. Student participation may include discussing the rationale for rules, identifying examples of behaviors which are covered by general rules, or suggesting or choosing particular rules in areas identified by the teacher. An advantage to having rules chosen in advance is that the list of rules can be posted when students enter the room, facilitating the communication of behavioral expectations to them.

A question which arises during the discussion of rules is the desirability of positively versus negatively stated rules. Both may be appropriate. Positively stated rules (e.g., Raise your hand to be called on.) have the advantage of stating the desired and/or expected behavior. Negatively stated rules (e.g., No running in the classroom.) may be useful by clearly prohibiting undesirable behavior.

The question of whether to have general or specific rules may be answered in a similar way. Specific rules are sometimes needed to govern specific behaviors that are important to the teacher, whereas general rules may serve to cover a number of behaviors. An important point to remember when using general rules is that students must be given specific examples of behaviors that fall under each rule.

PLANNING RULES AND PROCEDURES

1. Decide what behaviors are acceptable or unacceptable in your classroom. Find out about school rules and policies.

2. Identify necessary procedures for functioning in the classroom. Some of the areas for which you will need procedures include:

   Use of classroom space and facilities: bathrooms, pencil sharpener, sink, supply shelves, centers and stations

   Use of other parts of the school: playground, lunchroom, water fountains, library, lining up and passing through the halls

   Whole class activities and seatwork: student participation (raise hands), cues to get students' attention, making assignments, passing out supplies, talk among students, what to do when work is finished, headings

   Small group activities: movement into and out of group, bringing materials, behavior in and out of the group, contacts with the teacher

   Keeping students accountable for their work: turning in work, handing back work, make-up work, giving feedback

   Beginning and end of school (class) activities: Pledge of Allegiance, birthdays, schedule for the day (class), cleaning up, instructions for homework

   Administrative matters and housekeeping chores: taking roll, assigning helpers, what to do during delays or when the teacher is out of the room

   Special activities and safety drills: field trips, parties, fire and disaster drills

3. Identify general rules for behavior and post them in the classroom

   Chose 3-6 rules that will govern behavior in your classroom, in addition to your system of procedures.

   For each general rule, decide what specific behaviors will be covered and plan to explain the rules and present examples to the students.

GUIDELINES FOR WRITING RULES

RULES:

1) SHOULD BE STATED BEHAVIORALLY.

2) SHOULD BE EASILY UNDERSTOOD.

3) SHOULD BE STATED IN POSITIVE TERMS WHEN POSSIBLE.

4) SHOULD BE CONSISTENT WITH YOUR PHILOSOPHY.

5) SHOULD BE CONSISTENT WITH OTHER SCHOOL RULES AND POLICY.

6) SHOULD BE MANAGEABLE AND ENFORCEABLE.

SUGGESTED CONSEQUENCES

Choose a variety of reasonable and suitable consequences of appropriate and inappropriate behavior. Include both rewards and penalties. Some examples of each include:

Rewards

Requiring little or no effort - smile, compliment, a cheery note on an assignment, going first to lunch or recess, leading the line

Requiring moderate effort - happy face or star, positive note to parents, reward time at a center

Requiring much effort - field trip, party, a token system used to earn rewards or privileges

Penalties

Requiring little or no effort - eye contact, having the student state the rule broken, change seats, being last in line

Requiring moderate effort - staying after school, loss of privilege, call to parents, isolation in hall or room

Requiring much effort - trip to prinicpal's office, corporal punishment, being denied a special class event (e.g., field trip)

GUIDELINES FOR PLANNING BEGINNING OF SCHOOL ACTIVITIES

KEEP STUDENTS INVOLVED; AVOID DEADTIME

PROVIDE SUCCESS FOR ALL

MAINTAIN A WHOLE-GROUP FOCUS

ALLOW YOU TO STAY IN CHARGE OF ALL OF THE STUDENTS ALL OF THE TIME

PROVIDE VARIETY; CHANGES OF PACE

ESTABLISH A CONTENT FOCUS; SOME POSITIVE EXPECTATIONS

BEGINNING OF SCHOOL ACTIVITIES

1. TEACH RULES AND PROCEDURES
2. INTRODUCE STUDENTS TO THE ROOM
3. TEACH WARM-UP OR WIND-DOWN ACTIVITIES
4. SHOW MATERIALS AND SUPPLIES NEEDED
5. CONDUCT GET ACQUAINTED ACTIVITIES
6. PLAN SIMPLE ACADEMIC ACTIVITIES; REVIEW
7. DISTRIBUTE ONE OR MORE BOOKS; DO AN INTRODUCTORY LESSON AS A GROUP
8. INTRODUCE AN EXCITING NEW TOPIC OF STUDY

PRESENTING RULES AND PROCEDURES

1. Teach rules and procedures systematically, using:

    Explanation: definition in concrete terms, discussion of rationale, demonstration, examples of specific behaviors

    Rehearsal or practice, using cues or signals (e.g., bell, hand raised, certain word) when appropriate

    Feedback: specific and accurate information about compliance, review and reteach, if necessary

2. Sequence your teaching of rules and procedures so that they are presented to students as they are needed.

3. Review school rules and policies regarding other school areas (e.g., playground, lunchroom, passing through halls) prior to their use. Give feedback on student behavior when they return.

4. Remember that a necessary and important part of the teaching of rules and procedures is consistent enforcement and use of consequences (positive as well as negative).

Case Study H: Teaching a procedure

Description	Presentation Steps
Teacher H tells her class that they only have 6 1/2 hours in a school day and there is so much to learn. As a result she keeps a strict time schedule and she expects her students to move quickly and quietly from one activity to another. Teacher H shows the students a kitchen timer and makes it ring. She tells the students that this will be a very important signal. When this bell rings the students are expected to put away the materials they are using and move to the next activity as quickly as possible. For instance, after reading the teacher will ring the bell signalling that students are to put away their reading materials as quickly as possible. After reading, all students are then to move quietly to the rug where they will have a Spanish lesson. The teacher asks if there are any questions. No student raises his hand, so the Teacher says she would like for them to practice. She notes that the students have paper and pencil out on their desks, that they have been using to write a story. Teacher H says she will give them time to finish the story later on in the day so they should put their materials in their desks and come quickly to the rug when they hear the bell. At this point, the teacher rings the bell. Students immediately begin putting away their materials and moving toward the rug. Several students line up to get drinks of water and one goes to the bathroom. When everyone is on the rug in a circle around the teacher, she refers to the clock on the wall, saying that it took the students three minutes to put their materials away and get to the rug. She tells the students that they are third graders now and are capable of moving faster than that. She adds that they should be seated on the rug in a circle in one minute, that it was not time to use the bathroom or get a drink of water except in an emergency. She asks the students if they understand. The students all nod solemnly. Teacher H then instructs the students to return to their desks, take out their paper and pencils and get set to practice again coming to the rug. Students go quickly back to their desks, taking out their materials. When all are situated, Teacher H rings the bell and students again put away their materials, go to the rug, and sit in a circle. After all the students are settled, Teacher H smiles and thanks the students for doing a super job, that it had only taken them one minute four seconds to get to the rug.	

Case Study I: Teaching a Procedure

Description	Presentation steps
In preparation for having the children write a brief account of their summer, the teacher teaches them the kind of heading she will require on all written work. In her plans she has detailed these steps. On the front blackboard Teacher I has printed a sample heading for students' papers. She points to it, explaining to the students that she expects this heading to be on every assignment they do. She then points to the top left-hand side of the sample page and says that the students should write their names there. She explains that she cannot recognize handwriting yet and therefore wouldn't know to whom a paper belongs if it doesn't have a name on it. Teacher I then points to the line below where she has written "Reading." She explains that actually this line is for the subject of the assignment and will change when the students do an assignment in another subject such as math, spelling, science, or language arts. On the right hand side of the first line, students are told to put the name of the school. The teacher has written Smith Elem. here. She explains that she has abbreviated or shortened the word elementary so that it will fit more easily on the line. Then she repeats the word "abbreviate" and gives the definition. Under the school name, students are instructed to put the date. Here the teacher points out the calendar they may refer to in the future for the date. Teacher I then asks the class if there are any questions about the heading. When there are no questions, Teacher I tells the students to take out one sheet of paper and a pencil and put the correct heading on the paper Teacher I then circulates around the room checking and correcting the students'work.	

Examples of Questions That May Arise In Reference to Case Studies Handout I.

1. Why was Teacher H so picky and demanding? By being demanding at the beginning of the year as she taught the procedures, this teacher showed her students that they would be expected to follow her procedures closely and that she would be monitoring to be sure that they complied. This promoted efficient functioning of her classroom and let students know exactly what they needed to do to succeed. As a result, the climate of this room was relaxed and pleasant throughout the year.

2. Why did Teacher I go into so much detail when students had been in school for several years and probably knew how to head a paper? Teacher I established expectations for carefully and correctly done papers beginning with the heading. She did not assume students would know what to do; rather, she told students exactly what she wanted in the heading and why, making it clear to all students.

Minimum time for Activity 6 is 15 minutes.

Guidelines for Using The Videotape
The First Day of School: Effective Classroom Management in The Elementary School

The 30-minute color videotape contains a re-enactment of the first few hours of the first day of school in an effective teacher's classroom.

The following outline (Appendix 19) which forms a context for viewers, and it also introduces an effective activity plan to use with the tape. A good way to structure the viewing of the videotape is to show the tape in segments with introductory comments at the beginning of each segment. The "Viewing Guide for the First Day of School: Effective Classroom Management in the Elementary School" (Appendix 20) was developed for this purpose. It suggests dividing the tape into four segments and notes beginning and ending keys. Under each segment is a list of events which occurs in the segment and some things to watch for and to think about. By using a pause button on the videotape player, the instructor can stop the tape after each segment and focus the attention of participants on important points for each segment of the videotape. Participants can be asked to make notes on techniques used or questions they may have. Discussion may occur during the segment breaks or at the end of the tape.

Outline of Introductory Comments

THE FIRST DAY OF SCHOOL: EFFECTIVE CLASSROOM MANAGEMENT IN THE ELEMENTARY SCHOOL

Background

Results of the Classroom Organization Study (COS), conducted by the Classroom Organization and Effective Teaching Project (COET), showed that a well-planned first day of school is an important step in establishing good classroom management. This videotape illustrates many things that characterize the first day of school in effective teachers' classes. The tape contains a studio re-enactment based on classroom research records of an actual class. It was published by the Association for Supervision and Curriculum Development and produced by the Austin Independent School District in Austin, Texas.

Things to Keep in Mind as You View the Tape

* While the tape illustrates many effective classroom management techniques for the first morning of school, it is not meant to be taken as a perfect model. Variations in teacher style, personality, and personal preference affect how teachers choose to conduct their classes. The tape was designed to serve as a beginning point for discussion of what this teacher did, what the effects were, and what might have been done differently or better in other settings.

* Events of almost a whole morning of school have been excerpted in this 30-minute videotape. In order to include as many important teaching behaviors as possible, much of the normal classroom interaction was omitted. Relatively little student discussion is shown, for example. One result is an apparently less relaxed and leisurely pace than normal.

* Editing cuts are smooth. Don't be confused by activities that seem to end abruptly. You may also notice that the teacher never seems to respond to students who have hands raised for recognition. This was another side effect of editing the tape.

* A small number of students appears in the videotape. The classroom activities portrayed on the tape were originally conducted with a class of normal size.

* You may notice that students appear to be rather mature for the third grade. The videotape was made at the end of the school year. Students were volunteers from a third grade class in the Austin Independent School District.

Activity Plan

The viewing guide for The First Day of School: Effective Classroom Management in the Elementary School describes the events and important things to watch for in each of four segments of the videotape. At the beginning of each segment, the tape will be paused to allow time for looking over the viewing notes for the upcoming segment. As we watch each segment, you may wish to make brief notes or marks on your guide as reminders of things you would like to discuss at the end of the tape.

Viewing Guide for

THE FIRST DAY OF SCHOOL: EFFECTIVE CLASSROOM MANAGEMENT IN THE ELEMENTARY SCHOOL

Segment 1 (beginning of tape through introduction of Andrea)

EVENTS:

1) Students' entrance into the classroom
2) Getting name tags and taking seats
3) Introductions of teacher and students

THINGS TO WATCH FOR AND THINK ABOUT:

- Lining up outside room (a school policy that facilitated an orderly beginning)
- Type of name tags and attachment devices
- Specific praise to clarify directions, expectations
- The seating arrangement -- tables versus rows of desks
- Signals used by the teacher

Segment 2 (Andrea to "Here's our clock.")

EVENTS:

1) Teacher begins to teach students her expectations for behavior in the classroom
2) Introductions to the classroom itself

THINGS TO WATCH FOR AND THINK ABOUT:

- Use of definition, modeling, practice, and feedback to teach the students a signal or cue
- Teacher's awareness of students' concerns, needs for reassurance, involvement, and success
- Building positive anticipations; introduction of some major academic goals for the year
- Room arrangement — traffic patterns, access ease, labels teacher uses

Segment 3 ("Here's our clock." to Linda knocks)

EVENTS:

1) Discussion of school rules

2) Presentation of class rules and procedures

THINGS TO WATCH FOR AND THINK ABOUT:

- Defining of terms and monitoring of student comprehension
- Sensitivity to students' need for a break, change of pace
- Use of presentation, definition, demonstration or modeling, monitoring student comprehension, student practice and teacher feedback in teaching rules and procedures to the class
- Another instance of a school policy that made the beginning of school easier

Segment 4 (Linda knocks to end of tape)

EVENTS:

1) Teacher gives directions for three procedural tasks

2) Students carry out the tasks, while teacher monitors and directs. (We see only part of this sequence.)

3) Teacher presents directions for an academic task

4) Students begin work; teacher monitors; tape ends

THINGS TO WATCH FOR AND THINK ABOUT:

- Step-by-step presentation
- Teacher demonstration of tasks
- Student success; ease of tasks
- Use of specific praise to encourage and reinforce appropriate behavior
- Teacher waits for full attention before beginning instruction
- Teacher's effort to build group identifications and pride as a class

PROBLEM

Teacher A is very frustrated because her students do not seem to listen to instructions. Here is a typical incident: One the chalkboard Teacher A has written the spelling assignment, "Spelling, Unit 4, pp. 16-17, Exercises 1-4." She announces the topic, shows students where the assignment is written and asks them to open their books to the right pages. As soon as most students seem ready, she begins to read aloud the instructions for each exercise. When finished, she asks if there are questions. When there are none, she starts toward her desk. On the way she is stopped by three students with questions. After answering the same questions for two of the children, she gets the class' attention and rereads the instructions for Exercise 1. Then she goes to her desk where at least four more students come to get help on the same exercise.

STEPS IN MAINTAINING STUDENT ACCOUNTABILITY FOR WORK

1. GIVE CLEAR AND SPECIFIC INSTRUCTIONS FOR OVERALL WORK REQUIREMENTS.
2. COMMUNICATE ASSIGNMENTS AND INSTRUCTIONS SO THAT EVERY CHILD UNDERSTANDS THEM.
3. KEEP TRACK OF WHAT STUDENTS ARE DOING. MONITOR DURING SEATWORK AND CHECK WORK DAILY.
4. ESTABLISH PROCEDURES FOR CHECKING ASSIGNMENTS IN CLASS.
5. DEVELOP GRADING PROCEDURES THAT WILL FACILITATE BOOKKEEPING AND THAT WILL BE CLEAR AND FAIR TO ALL STUDENTS.
6. PROVIDE REGULAR, FREQUENT ACADEMIC FEEDBACK TO STUDENTS. COMMUNICATE WITH PARENTS FREQUENTLY.

Examples of Accountability Systems

A primary grade teacher uses her class's after-lunch rest break to check each student's morning seatwork and give academic feedback. While students rest with heads on desks and take turns using bathroom facilities, the teacher calls students up one by one to her desk. Each child brings up his or her morning work (which had been stacked neatly on each desk before the class left for lunch), and waits while the teacher quickly checks and marks each paper. If an assignment is incomplete, the teacher marks how far the student got and makes arrangements for the student to complete it later. If an assignment is too complex to be checked very quickly, the teacher checks it for completion only and keeps it for grading later.

On Mondays, an elementary teacher gives her students a schedule of assignments for the week. The schedule is in the form of a picture, such as a girl holding five large balloons, with each balloon enclosing the list of written assignments for a particular day. Students check off each assignment as they complete it. The teacher checks on their progress at the end of the day. Any item not checked off on the day of assignment must be completed the following day.

A junior high English teacher uses a similar system. At the beginning of each week, she gives each student a calendar for the week, listing the activities that will be done each day; what assignments will be turned in, their due dates, and the point values for each; any tests the students will be taking; and what books and materials to bring to class each day. Students use the calendar to keep up with assignments and to record their actual grades or points earned. At the end of each week, the calendar must be signed by parents and returned to the teacher.

An important tool in one junior high school teacher's accountability system was a notebook that she required her students to keep. In addition to daily assignments and tests, the notebook included a dittoed grade sheet, which was sectioned for recording homework grades, test grades, pop test scores, and a notebook score. Students were to record and average their grades on this page for each six weeks' period and compare their computations with the teacher's to verify their grade. Major tests were to be put in their notebooks after having been signed by parents. The notebook also had a section for class notes, as it was often necessary for the students to take notes in class.

Homework assignments were written on the front chalkboard and students copied them in their notebooks. Homework was always checked and had to be turned in on time or the students would recieve a zero. She taught students how to average grades and demonstrated the effect a zero would have on a homework average.

When work was checked by students in class, the teacher frequently checked to see how many missed a particular question, and if there were many, she explained the question in detail. During checking period, she walked around the room looking at their papers. After all the answers were discussed, she told them step-by-step how to determine the grade. Points were deducted if a student failed to use pencil or to write out problems. Then she told them to pass the papers quietly back to their owners.

She then called on students for their grades and recorded them in her grade book. If students thought their papers had been graded incorrectly, they were to tell her the grade they were given and put their paper in a designated place on her desk. She then checked it at the end of the period. She reminded students to record grades on their grade sheet and periodically told them how many grades they should have listed.

Students who had been absent turned in their papers directly to the teacher to be checked. When students received low homework grades because they did only part of the assignment, the teacher put a star beside the grade in her book.

When finished with an assignment, students were to work on their next assignment or on extra credit problems which were always available. This teacher cautioned students to check over their work and to be sure they had an A paper before turning it in.

MONITORING TIPS

1. DURING PRESENTATIONS, WATCH THE WHOLE CLASS. STAND WHERE YOU CAN SEE EVERYONE.
2. MOVE AROUND THE ROOM.
3. WHILE MONITORING, WATCH FOR: INAPPROPRIATE BEHAVIORS, ATTENDING BEHAVIORS, APPROPRIATE MATERIALS ON STUDENTS' DESKS, FAILURE TO FOLLOW DIRECTIONS, SIGNS OF CONFUSION OR FRUSTRATION, AND COMPLETION OF WORK.
4. DON'T BECOME SO ENGROSSED WITH ONE STUDENT OR SMALL GROUP THAT YOU LOSE CONTACT WITH THE REST OF THE CLASS. SCAN THE ROOM OFTEN.
5. DON'T LET STUDENTS CONGREGATE AROUND YOUR DESK, BLOCKING YOUR VIEW OF THE REST OF THE CLASS.
6. START SEATWORK ASSIGNMENTS AS A GROUP OR AT LEAST UNDER CLOSE SUPERVISION.
7. CHECK ASSIGNMENTS AND RECORD GRADES REGULARLY.
8. LOOK FOR OPPORTUNITIES TO PRAISE STUDENTS FOR APPROPRIATE BEHAVIOR.

SIMPLE WAYS TO HANDLE INAPPROPRIATE BEHAVIOR

1. MAKE EYE CONTACT WITH OR MOVE CLOSER TO THE OFFENDER. USE A SIGNAL TO TERMINATE THE BEHAVIOR (E.G., A FINGER TO THE LIPS TO STOP TALKING, NODDING AT OR POINTING TO THE STUDENT'S DESK IF HE/SHE IS OUT OF SEAT). MONITOR THE STUDENT TO MAKE SURE HE/SHE ENDS THE VIOLATION AND BEGINS THE APPROPRIATE BEHAVIOR.

2. IF THE STUDENT IS NOT FOLLOWING A PROCEDURE CORRECTLY, REMIND THE STUDENT OF THE CORRECT PROCEDURE. HAVE THE STUDENT PERFORM THE CORRECT PROCEDURE. MAYBE HE/SHE DOESN'T UNDERSTAND IT.

3. ASK THE STUDENT TO STATE THE APPROPRIATE RULE OR PROCEDURE, THEN FOLLOW IT.

4. TELL THE STUDENT TO STOP THE RULE VIOLATION. MONITOR THE STUDENT UNTIL YOU CAN OBSERVE APPROPRIATE BEHAVIOR.

WHEN CAN INAPPROPRIATE BEHAVIOR BE IGNORED OR HANDLED WITH DELAYED FEEDBACK?

THE PROBLEM IS MOMENTARY AND NOT LIKELY TO ESCALATE.
IT IS A MINOR DEVIATION.
HANDLING IT WOULD INTERRUPT THE FLOW OF THE LESSON.
OTHER STUDENTS ARE NOT INVOLVED.

GINOTT'S VIGNETTES ON DISCIPLINE

Ginott presents many vignettes on discipline. His vignettes describe disciplinary methods that are inappropriate as well as those that are appropriate. Teachers using inappropriate discipline:

1. Lose their tempers. Example: Resort to shouting, slamming books, and using verbal abuse.
2. Resort to name calling. Example: "You are like pigs!" "Clean that up!"
3. Insult students' character. Example: "Johnny, you are nothing but lazy!"
4. Demonstrate rude behavior. Example: "Sit down and shut up!"
5. Overreact. Example: Mary accidentally drops a sheaf of papers she is handing out. Teacher: "Oh for heaven's sake! Can't you do anything right?"
6. Display cruelty. Example: "Watch carefully on your way home from school, Jack. You're a little bit short on brains."
7. Punish all for the sins of one. Example: "Since certain people couldn't listen during the assembly, we will have to miss the next one."
8. Threaten. Example: "If I hear one more voice, we will stay in at recess."
9. Deliver long lectures. Example: "It has come to my attention that several students think the trash can is a basketball hoop. We can throw things on the playground. In the classroom. . . . "
10. Back students into a corner. Example: "What are you doing? Why are you doing that? Don't you know any better? Apologize at once!"
11. Make arbitrary rules. These rules involve no student discussion or input.

Teachers using appropriate discipline:

1. Recognize feelings. Example: "I can see that you are angry because you have to stay after school."
2. Describe the situation. Example: "I see coats all over the closet floor. They need to be hung up."
3. Invite cooperation. Example: "Let's all help to be quiet, so we can go to the puppet show."

4. Are brief. Example: "We do not throw paper."

5. Don't argue. They stick to a decision, but remain flexible enough to change it if they are wrong. Arguing is always a losing proposition.

6. Model appropriate behavior. They always show through example how they want students to behave.

7. Discourage physical violence. Example: "In our class we talk about our problems. We do not hit, kick, or pull hair."

8. Do not criticize, call names, or insult. Example: A child interrupts the teacher's conversation. Teacher: "Excuse me. I will be with you as soon as I finish this conversation."

9. Focus on solutions. Example: "I am seeing unsportsmanlike conduct on the playground. What can we do about that?"

10. Allow face saving exits. Example: "You may remain at your desk and quietly do spelling, or you may sit by yourself in the back of the room."

PROBLEM: STUDENTS CALLING OUT RESPONSES

Ms. Stevens is a very warm person and sincerely likes her students. She feels this accounts for some of her difficulties during class discussions. When she tries to engage participation in a lesson or discussion, some students call out their responses even when she has already called on someone to answer. She feels that they know to raise their hands, and she is reluctant to stifle their enthusiasm by constantly reminding them to do so. On the other hand, she sees that when she allows call outs, some students cannot be heard, and some never even attempt to participate. WHAT SHOULD SHE DO?

Some Things to Consider

Teaching rules and procedures

Signals and cues

Consequences

Inappropriate behavior

Some Specific Suggestions

Go over your reasons again for requiring the students to raise their hands (i.e., being fair and courteous, and your ability to hear only one at a time).

Continue complete consistency in responding only to answers of students who are called on with raised hands.

Encourage the students who call out to raise their hands by signalling with a finger over your lips and your hand raised briefly when they call out. As soon as one raises his/her hand, try to call on that student and praise his/her hand raising. Be enthusiastic (e.g., "That's great! Your hand is up! That makes me really want to hear from you.").

Establish a signal for choral responses, such as a hand gesture or a word (e.g., "Class" or "Everybody"). Have the class practice responding to each signal. When possible, alternate forms of responding during discussions.

If certain class members persist in calling out to a distracting extent, have them leave the discussion area and either return to their seats or go to a time out area. Later, talk privately with them individually about what they think might help them to control their inappropriate behavior and still allow them to participate (e.g., promising to call on them immediately if they raise thir hands).

Help these individuals keep a written record of the number of times they raise their hands and the number of times they call out each day. Check the record with each child at the end of the day. Reward improvement and no-callout days.

ADJUSTING INSTRUCTION

SOME ADVANTAGES OF USING WHOLE GROUP INSTRUCTION:

MONITORING IS EASIER; FEWER PROCEDURES NEEDED; LESS MOVEMENT OF STUDENTS; CHECKING AND FEEDBACK IS EASIER; PREPARATION LESS COMPLEX; SOCIAL CONSIDERATIONS

MODIFICATIONS OF WHOLE GROUP INSTRUCTION FOR HETEROGENEOUS CLASSES

1. SEATING ARRANGEMENT; CHECKING ON LOWER LEVEL STUDENTS.FIRST
2. LEARNING CENTERS AND SKILLBOXES
3. ENRICHMENT MATERIALS
    - WORK RELATED
    - NOT DISTRACTING
    - FEEDBACK AND ACCOUNTABILITY
4. INCLUDING EVERYONE IN RECITATION, DISCUSSION
5. DIFFERENTIATED ASSIGNMENTS

SMALL GROUP INSTRUCTION - IMPORTANT CONSIDERATIONS:

PLANNING AND TEACHING PROCEDURES

ACCURATE DIAGNOSIS

MAXIMIZING ACTIVE INSTRUCTION TIME WITH TEACHER

SMALL GROUP INSTRUCTION

SETTING THE STAGE

1. GAIN ATTENTION
2. PRESENT ASSIGNMENTS ORALLY OR ON THE BOARD
3. CHECK FOR UNDERSTANDING
4. EXPRESS POSITIVE EXPECTATIONS FOR APPROPRIATE BEHAVIOR
5. ESTABLISH RULES AND PROCEDURES FOR STUDENT BEHAVIOR BOTH IN AND OUT OF GROUP.
6. MONITOR STUDENTS AS THEY MOVE IN AND OUT OF GROUPS
7. ALERT STUDENTS ABOUT NEEDED MATERIALS
8. BEGIN LESSON WHEN STUDENTS ARE SETTLED AND ATTENDING

MAINTAINING THE PACE

1. CHECK TO SEE IF NEEDED MATERIALS ARE BROUGHT
2. MONITOR OUT-OF-GROUP STUDENTS FOR QUESTIONS OR SIGNS OF CONFUSION
3. DEVELOP PROCEDURES TO HANDLE THIS WITHOUT DISRUPTING GROUP
4. PROVIDE ACADEMIC FEEDBACK ABOUT PERFORMANCE IN GROUP
5. ENCOURAGE STUDENTS TO CONTINUE TO DO WELL IN OUT-OF-GROUP SEATWORK
6. STOP DISRUPTIVE AND INAPPROPRIATE BEHAVIOR PROMPTLY
7. GIVE INSTRUCTIONS FOR SEATWORK AND CHECK FOR UNDERSTANDING BEFORE DISMISSAL
8. INTERACT WITH STUDENT, HANDLE STUDENT QUESTIONS, GIVE HELP BETWEEN GROUP ACTIVITIES

TO SUMMARIZE: BETTER GROUP MANAGERS

MADE CERTAIN THAT STUDENTS KNEW WHAT WAS EXPECTED
MONITORED FOR ACADEMIC AND BEHAVIORAL COMPLIANCE
HANDLED INAPPROPRIATE BEHAVIOR PROMPTLY AND WITHOUT DISRUPTION

PROBLEM: MANAGING GROUPED INSTRUCTION

Ms. Hart is not at all satisfied with the way out-of-group students work while she is working with a small group. Although she feels she allows appropriate amounts of time for work to be completed and gives thorough instructions before the small group starts, some students do not follow seatwork directions and many never finish their work. A few students finish early, turn in their papers, and begin free time activities. Soon many students are visiting or using free time activities. Ms. Hart has to interrupt her work with the group to discipline rowdy students or answer questions. WHAT CAN SHE DO TO IMPROVE HER SITUATION?

Some Things to Consider

Planning procedures for seatwork and small group instruction

Teaching expected procedures to the class

Planning instructional activities

Student accountability for seatwork

Some Specific Suggestions

Make sure everyone understands instructions before starting groups.

Tell students ahead of time what will be checked, and when.

If seatwork includes some silent reading, have listed on the board some reading comprehension questions which students will be held accountable for when called to the group.

In order to have time to get the seatwork groups started right, give the first small group a getting-ready task to complete before you join them.

Help students pace themselves. Show them on the clock how much time the first assignment should take. Better yet, set a timer to signal when they should be finished with a particular assignment and go on to the next.

After working with a group for a while, give the students in group a short task to do on their own while you leave them to check on progress of out-of-group students and answer questions.

After a specified period, put small group students on a short task and circulate among other students. Mark in red where each student is on the first assignment. They can then start on their next assignment, but should be required to finish the first assignment at home or in class later.

Or, when the small group has been given a short task, lead other students in quickly checking their first seatwork assignment.

Avoid allowing students to interrupt you with questions when you are with a small group. Tell them to skip troublesome parts until you can talk to them, or use student monitors (peer helpers).

Use a signal (such as a hat or a flag) so students can tell when they may approach you with questions and when they may not.

PROBLEM: HETEROGENEOUS CLASSES

Never before has Ms. Rogers had to deal with students of such different entering achievement levels in her 7th grade class. She feels frustrated in her efforts to provide instruction at appropriate levels for some students several years below grade level and others above grade level. The fastest students finish seatwork way ahead of the rest of the class, while the slowest students seldom successfully complete an assignment. HOW CAN SHE PROVIDE CHALLENGE FOR THE BRIGHTEST STUDENTS WHILE GIVING THE SLOWEST STUDENTS THE EXTRA HELP THEY NEED?

Some Things to Consider

Adjusting whole group activities
Using small group instruction
Student accountability for work

Some Specific Suggestions

If you have one or two students who are especially likely to have trouble with whole class assignments, place these students' desks where you can easily keep an eye on them during instruction and seatwork. As soon as you have given seatwork instructions to the whole class and you have monitored to be sure they have begun work, check with the slower students(s) privately to go over instructions again or modify the assignment, as needed. If there are more than two such students, treat them as a small group.

Provide enrichment materials for students who finish whole class assignments early. These should be work-related activities that will not distract other students. Set up a system for giving feedback, credit or recognition for completion of enrichment activities.

Each day plan a basic assignment that all students will do. Then plan additional activities at appropriate levels for some or all groups.

Challenge brightest students to work for greater speed and accuracy. Encourage them to sharpen their skills of reasoning and of explaining their answers.

Use a Skill Box or activity center that allows students to work at their own pace for one part of their daily seatwork assignment.

Be sure to involve _all_ students in the class when leading a discussion or recitation session.

Include some activities that can be done together as a whole class but at different levels by different students.

If the above suggestions are not sufficient for a given class, use small group instruction for part of your course work. Plan and teach procedures for group work carefully.

PROBLEM: TRANSITIONS

Ms. Sullivan's class is well behaved when they are involved in a lesson or assignment, but they have problems with changes from one activity to another (transitions). When the teacher tells students to get out their math supplies while she picks up or passes out papers, students start to talk loudly, and many leave their seats. Some sharpen pencils; others get drinks of water, wash their hands, or go to the restroom. A few continue to work on their previous assignment. The teacher has to repeat her directions to the class many times, and there is confusion and delay. HOW CAN SHE MAKE THESE TIMES GO MORE SMOOTHLY?

Some Things to Consider

Planning classroom procedures
Teach classroom procedures
Routines for turning in work
Monitoring
Stopping inappropriate behavior

Some Specific Suggestions

Avoid doing anything that interferes with your ability to monitor and direct during transitions. Have teacher materials ready before the transition. Don't allow comeups.

Teach students exactly what behaviors you expect during transitions: voice level, use of fountain, sink, pencil sharpener or bathroom, regular procedures for turning in or passing out papers or supplies, ready signals.

Limit students' movement around the room during transitions.

Rely on established routines as much as possible.

Praise or otherwise reward students (or tables, teams, etc.) who follow instructions most quickly and quietly.

Use timers to encourage students to "beat the clock".

APPROPRIATE PACING

PACING INCLUDES BOTH THE AMOUNTS OF TIME SPENT ON EACH ACTIVITY OR EACH ASPECT OF ACTIVITY, AND THE SEQUENCING OF ACTIVITIES

GOAL - TO RESERVE AS MUCH TIME AS POSSIBLE FOR ACTIVE INSTRUCTION

THINGS THAT CONTRIBUTE TO GOOD PACING:

1. THOROUGH PLANNING AND PREPARATION (DOING THE ACTIVITIES, OUTLINING PRESENTATIONS)
2. OBTAINING FREQUENT WORK SAMPLES DURING PRESENTATION
3. BEING FLEXIBLE BASED ON THE WORK SAMPLES
4. ALTERNATING SEATWORK, ACTIVE INSTRUCTION, RELAXATION
5. SELF-MONITORING OF TIME (USE TIMERS IF NECESSARY)

APPENDEX B

MANUAL

FOR

CLASSROOM MANAGEMENT OBSERVATION & CONFERENCE MODEL

June 1983

Adapted from measurement used in the Classroom Organization and Effective Teaching Project, The Research and Development Center for Teacher Education, University of Texas at Austin, Carolyn M. Evertson, Director.

MANUAL FOR CLASSROOM OBSERVERS/CONFERENCERS

Classroom observations can provide information about life in classrooms that is available from no other source. If we really want to understand how classrooms function. . . what the climate and rapport level is, or the quality of teacher-student interaction. . . there is no better method than simply to go and observe in the setting itself. Help in understanding and, ultimately, improving instruction comes from seeing just how events take place in the classroom and in the school setting.

This manual will provide some guidelines, definitions, essential steps, and things to think about when conducting or preparing to conduct classroom observations. It includes definitions and directions for gathering three different types of information when you do your observations. These are:

1. Classroom narrative notes
2. Student engagement ratings
3. Teacher conference form

These three types of information are intended to supplement and complement one another, so that when observations are completed you will have as complete a picture as possible of the instructional skills and classroom activities within a particular setting.

GUIDELINES FOR CLASSROOM NARRATIVE NOTES

One of the most important informational sources will be your classroom narrative notes. These should include a detailed record of events, time use, and behaviors in the classrooms you visit. After each observation, notes should be gone over and any missing information should be filled in. (See Form A in Appendices.)

Be sure to fill in the information at the top of the page.

1. School and teacher name
2. Class period (if secondary)

   Grade level (if elementary)
3. Date of observation
4. Number of students in the class
5. Observer

Notetaking should begin as soon as you enter the room. Start with a general description of the classroom, what the teacher is doing, and what the students are doing. Record the time observation began and periodically keep track of the time throughout the period. This will yield important information about time use. See Page B for an example of how a complete narrative might look.

Classroom Narrative Notes should:

— Be characterized by a balanced focus on teacher behavior, on individual student behavior, and on behavior of the class as a whole.

-- Make clear where the teacher is and what she/he is doing during each activity segment.

— Make clear what the rest of the class is doing while activities are going on.

— Record enough of the teacher's instructional statements and questions to give the reader an idea of the instructional style, skill, and content.

-- Record enough of the teacher's and students' verbal interactions to provide a clear picture of the teacher's manner of interacting with students and of the classroom climate as a whole.

A good narrative should be an objective record of what took place in the class with the added advantage of the observer's interpretations, background information, opinions, and subjective reactions. CAUTION: Subjective statements or opinions should, however, be identified by bracketing or prefacing them in the narrative notes. In addition, a good narrative combines enough concrete detail with global or summary descriptions to enable a reader to picture the classroom, its events, and its routines.

GUIDELINES FOR RECORDING STUDENT ENGAGEMENT RATINGS

Note that on the form for recording classroom narrative notes, (Form A), there are two inserted boxes on the right-hand side of the page. These boxes provide space to record how well, or how many, students are attending and engaging in what they are supposed to be doing. As you are recording your classroom narrative notes, also collect this information by doing the following:

1. Sometime within the first ten minutes of your visit, categorize the students present in the class in one of the following categories: (If there is only a small group, then count those present.)

   Definitely on task - - - (Students who are doing what they are supposed to be doing as defined by the teacher.)

   Probably on task - - - - (Students who may look engaged, but you are not sure.)

   Off task - - - - - - - - (Students who are not doing what they are supposed to be doing.

They may be visiting with neighbors, daydreaming, or wandering around the room.)

Dead time - - - - - - - -	(Students who are either finished with their work and have nothing else to do or they are waiting to be given an assignment.) NOTE: Students with their hands up waiting to be called on in class discussion do not count as dead time.

There should be at least three such ratings for each 30 minute observation. It is important that you record these ratings randomly during your first 10 minutes in the class, then every 10 minutes thereafter. This avoids recording only when the class is calm. Often this can provide a rosier picture of student engagement in a class than is actually the case. What you are seeking with these ratings is a representative measure of whether student engagement does or does not exist in a given classroom. Many ratings over a periodic amount of time will provide a more accurate picture.

In filling in the boxes on the side of your narrative note sheets, make sure that you have included the number of students present in the class as a whole. This will serve as the denominator in calculating the percentage of students engaged in any of our four categories. See Student Engagement Form A for an idea of how the information should be recorded.

There are 20 students present in Mrs. A's class. Fifteen of them are Definitely on Task (15/20 = 75%). Two of them are Off Task (2/20 = 10%), and three of them are in Dead Time (3/20 = 15%).

These calculations, of course, can be done after you have completed your observation. The important thing to remember is that all of the information asked for in the box will be essential to you later.

DESCRIPTORS FOR TEACHER CONFERENCE FORM

(FORM C)

1. Instructional Management

   1a. Describes objectives clearly. Has the teacher indicated the purpose of the lesson or what students are to learn? Look for evidence of this in materials given to students, in objectives written on board, or in statements from teacher when introducing or summing up a lesson.

   1b. Materials are ready. Materials are available in sufficient quantity on all occasions during the observation.

   1c. Clear directions for assignments or activities. Indication of clear directions can be found by noting whether there are step-by-step intructions given by the teacher and repeated by the students.

   Written instructions may be on the chalkboard or overhead projector. The observer can infer that directions are clear if students go right to work without signs of confusion.

1d. Assignments or activities for different students. Excluding reading instruction, determine if the teacher provides for individual differences in aptitudes and interests.

All pupils do the same assignment

Some provision (optional extra work)

Moderate provision (students can choose after they finish the basic assignment)

Considerable provision (individual and group projects for different students)

Great attention to individual differences (e.g., extensive use of student contracts, work groups)

1e. Provides or seeks rationale or analysis. The teacher is careful to explain reasons why certain procedures, formulas, and rules are used rather than simply presenting them to the students as "the way" to do it. The teacher's questions encourage analysis and reflection by students (understanding instead of rote memorization). The teacher may ask students to explain or justify conclusions, give reasons or background information.

1f. Appropriate pacing of the lesson. Lessons and activities proceed smoothly from beginning to end. Lesson flow is not interrupted. Once the assignment is given, students proceed to work without frequent starts and stops. Adequate time is provided for all parts of the lesson.

1g. Clear explanations and presentations. Relevant explanation is presented in a logical sequence; skills when taught, are appropriately modeled; examples, which are meaningful and interesting to the students, are provided in adequate number. The teacher selects the objective at the correct level of difficulty, and uses a variety of approaches if the content is not initially comprehended. Clear precise language is used.

1h. Monitors student understanding. The teacher actively seeks information about student comprehension during the lesson explanation or guided activities. Teacher may question students, use quick drills, show of hands, etc. Teacher circulates widely during guided activities, checking student work.

1i. Work standards are clear. The quality of student work, with respect to performance and to effort, is conveyed to students. Students know what is expected of them (e.g., teacher may have a display showing the correct heading for papers).

1j. Consistently enforces work standards. Teacher does not accept performance below the set standard, including efficient use of time. Poor quality work may be refused or returned for the student to do over. All students are expected to work to their capacities. Teacher does not give up on or ignore one child or a sub-group of the class.

2. Rules and Procedures

2a. Appropriate general procedures. These procedures are those which include bathroom use, coming and going from the room, lining up, opening and closing activities, using materials and supplies, level of noise in the room during different activities, and movement around the room.

Many areas have no procedures or rules and/or they are not appropriate.

Procedures are evident, but they are inefficient or poor.

Adequate procedures are present in all relevant areas of the room.

2b. Efficient small group procedures. These include going and coming from the group area, obtaining or bringing needed materials, handling come-ups and other interruptions, procedures for out-of-group students, and student response or question signals.

Many areas have no procedures or rules and/or they are not appropriate.

Procedures are evident, but they are inefficient or poor.

Adequate procedures are present in all relevant areas of the room.

2c. Suitable routines for assigning, checking, and collecting work. Assignments are given clearly; procedures for communicating and maintaining a record of assignments and for handling previously absent students are established. Checking routines (passing papers, marking correct or incorrect answers, time use) are appropriate. Procedures for collecting and returning daily work are established.

3. Meeting Student Concerns

3a. Attention spans considered in lessons. Activities are paced so that students do not sit inactive for long periods. Also, note the use of occasional rest breaks and variations in teaching style to arouse interest or attention.

3b. Degree of student success. Students are able to perform the tasks, complete the assignments, and engage in activities.

All students succeed in all observed activities.

High student success, but an occasional student may fail to make progress or fail to complete work.

Moderate to high student success, but several students fail.

Moderate to low student success, with occasional high failure rates.

Low student success and prevalent student failure. As many as half the class are frequently unsuccessful.

3c. Activities related to student interests or background. Teacher makes references to or draws relationships between the content being studied and aspects of students' lives or interests. There is evidence for this when students make contributions to class activities drawn from their own experiences and lives.

4. Managing Pupil Behavior

4a. Rewards appropriate performance. This refers to actual student accomplishment. Reinforcement can include non-perfunctory teacher praise, approval, recognition, displays of good work, privileges, tokens, check marks, pats-on-the-back, etc.

4b. Consistency in managing behavior. How predictable is the teacher's response to appropriate and inappropriate behavior?

Teacher is highly consistent. Approved behavior is the same for all tasks and all students.

Teacher is usually consistent. There is only an occasional variation or bending of the rules for the most part.

Teacher has some inconsistency, maybe limited to a single area such as allowing students to call out when there is a rule against it.

Teacher is moderately inconsistent. Students are never quite sure what the teacher's reaction to misbehavior will be.

Teacher is highly inconsistent. Teacher frequently allows a behavior on one occasion and disapproves of it on another.

4c. Effective monitoring. This is the degree to which the teacher is aware of the behavior in the class. This skill requires visual scanning and alertness; the teacher avoids becoming engrossed in an activity with a single student or a group of students. Teacher sees misbehavior when it occurs rather than detecting a problem only after it has escalated into a visible incident.

4d. Efficient transitions between activities. This is the degree to which students move from one activity to another without disruption or undue noise.

Smooth, efficient transitions with good student cooperation

Usually, overly long transitions, wasted time between activities, poor student cooperation.

5. Student Misbehavior

5a. Disruptive pupil behavior. Estimate the amount of disruptive behavior that occurs in the classroom. This is any interference with instructional, attentional, or work activities of the teacher or the class (Note: Whispering, writing notes, or goofing off are not considered disruptive, but should be rated in 5d. as inappropriate behavior).

High degree of frequency. (causes a constant problem for the teacher and other students)

Frequent disruptive behavior (four or five in an hour)

Moderate disruptive behavior (three an hour)

One or two mild disturbances in an hour

Absence of any disruptive behavior

5b. Disruptive behavior is stopped quickly. Teacher takes action which causes the behavior to stop without involving other students or without causing interruption to other activities. There is a rapid return to normality.

5c. Disruptive behavior is ignored. Teacher makes no attempt to stop the disruption. She/he may watch students but takes no action, or teacher may look away. The observer should be reasonably certain that the teacher has seen the misbehavior.

5d. Inappropriate pupil behavior. Inappropriate behavior is any type of nondisruptive behavior that is contrary to the classroom rules. Some common types are: talking out of turn, whispering to neighbors, getting out-of-seat, goofing off, being tardy to class, failing to complete work, sleeping, etc., not following established procedures.

5e. Inappropriate behavior is stopped quickly. (See 5b above)

5f. Inappropriate behavior is ignored. (See 5c above)

6. Classroom Climate

6a. Task-oriented focus. The students and teacher work together toward the accomplishment of activities and assignments. The teacher emphasizes the importance of learning the content and skills of the curriculum, and students cooperate with a willingness to do school work.

6b. Relaxed, pleasant atmosphere. Teacher and students have developed a rapport and get along nicely. There is an absence of friction or antagonism. Behavior is friendly and courteous.

6c. Avoidance behavior during seatwork. This is the extent to which students dally along or otherwise persistently avoid getting down to do their seatwork, If the observation does not include a time when seatwork is given, draw a line through this item.

6d. Participation in discussion/recitation. This is the extent to which students participate and respond in whole class or small group discussions or recitations. Participation may be voluntary or called for by the teacher. If there is no discussion period during the observation, draw a line through this item.

6e. Listening skills. These are skills and behaviors the teacher uses that encourage students to talk out their feelings or problems. The teacher indicates an acceptance of students' feelings (e.g., Would you like to talk more about it? You seem upset, do you want to tell me about it?).

6f. Expresses feelings. The teacher states how she/he feels about certain behaviors or activities in interaction with students. These expressions of feeling can be positive or negative and can include such statements as "I am happy, sad, annoyed, upset, pleased..." This may occur during class discussions, behavior management situations, or when any aspect of student behavior or class activity is being discussed. It is important that the teacher's expression of feelings not place students in a vulnerable position (e.g., a teacher who continually responds to misbehavior by telling students how angry she/he is may be using this as a tool rather than a sincere expression of feeling). The expression of feelings appears to be a clear and direct attempt to inform students about how she/he feels about some aspect of their behavior.

GUIDELINES FOR OBSERVING

Now that you have some experience with the observation items, we will need to understand how to gather that information. There are several issues to consider. The appropriate selection of the time and the length of the observation can ensure that what you see when you observe is an accurate reflection of what that particular classroom is like. As you know, classrooms do not present the same picture from day to day. The observer cannot always be sure that the sample of behavior observed on one day in a given class is representative of what normally occurs. If observations are being used as a means of understanding and assessing for teacher conferences later, then it is necessary to make sure that your data represents a true picture.

While making sure we see that the events which are dictated by our observation instruments are important, it is equally important that we observe long enough and over enough occasions to get a representative sample of what life is like in the classrooms which we are observing. We cannot hope to get a good representation of a teacher's management skills in one 10 minute observation of seatwork, but we might get a much clearer picture from several 30 minute observations.

For teachers who have had classroom management training in the "before school" workshop, observe at least twice during the first three weeks of school. These observations should be at least 30 minutes long.

For teachers who have had the second workshop after the first three to four weeks of school, observe at least once more for another 30 minutes.

Plan observations during the times when the behaviors you are looking for are likely to occur and try to catch the beginnings and endings of lessons, if possible. It is helpful to see an entire segment.

OBSERVER RELIABILITY

Another important element in making classroom observations is observer objectivity. The observer must work hard to look past external characteristics and to strengthen objectivity during observations. Sticking to a formal observation system will help, but observers must be careful that comments from staff, past reputation, parent opinions, and opinions of other teachers do not influence what is seen and how it is interpreted. Several sources of observer bias can creep into observational data. The best method for countering this bias is to be aware of it and to work hard to maintain objectivity.

Sources of observer errors:

1. Halo effect. The tendency to allow a person's previous performance influence the assessment of present performance. This can either be positive or negative.
2. Logical error. The tendency to assess a person high or low because she/he was assessed high or low in a similar circumstance. (i. e., A teacher who is assessed high on "describes objectives clearly" might also be assessed high on "giving clear directions" because the two appear to be logically related.)
3. Errors of judgment. The tendency of observers to assess a behavior when they do not

have enough information to make a judgment or when they cannot decide how to assess the behavior.

The above mentioned sources of observer error are important to beware of because they can cause assessment to be unreliable. The consistency of assessment is simply the degree to which the observation information gives consistent results when used over several occasions and across several observations.

Consistency is important for several reasons. Unless an observation system measures the same behavior consistently, one cannot have confidence in the information it yields. This issue becomes critically important when you are conferencing teachers about teaching skills.

Some sources of inconsistency are:

-- Events themselves are fleeting and constantly shifting.

-- Observers disagree about what they see in the classroom.

-- The conference form or narrative notes may lack consistency in assessing certain things.

The forms you are trained to use have been used successfully in several research studies and in studies in schools in Arkansas. The forms are considered to be reliable in many different settings. However, to ensure their reliability, observers are asked to observe over several occasions, to understand and agree upon the definitions of the items, to use the forms in the same way, and to use more than one item to measure the same behavior or trait.

GUIDELINES FOR CONFERENCES

Clinical supervision is essential for the improvement of every component of the Total Teaching Act. Just as it is a critical element in improving instructional skills, clinical supervision will assist in the improvement of classroom management skills.

The classroom management observation instruments are recommended to be used in clinical supervision as follows:

I. Diagnosing

  A. Gather data using the instruments described in this manual which are (1) Narrative Notes, (2) Student Engagement, and (3) Teacher Conference Form.

  B. Label and classify the data using the descriptors with the Teacher Conference Form.

  C. Diagnose by determining whether the teacher did or did not use each category of classroom management effectively.

II. Selecting Conference Objectives

Using the diagnostic information, the observer must establish priorities for conference objectives. In other words, a determination must be made about the elements which contributed the most and the ones which contributed the least to effective classroom management during this observation.

III. Planning the Conference

Using the Teacher Conference Form, the observer will record commentary statements taken from the selected conference objectives, using the language of the descriptors. Specific evidence from the Narrative Notes should also be recorded. The observer will need to prepare suggested alternatives, if needed, as well as ways to give positive reinforcement.

IV. Conducting the Conference

The conference is conducted in the same manner as a conference on instructional skills, following the plan. It is recommended that during the classroom management training period, conferences be conducted exclusively for classroom management skills. After the training period, observations and conferences will include classroom management as a component of the Total Teaching Act. The observer will find that analysis of an observation is enhanced by the combination of data-gathering techniques used in PET and those described in this manual.

APPENDICES

BEST COPY AVAILABLE

(Form A)

NARRATIVE NOTES

Teacher _______ School _______ Subject _______ Grade Level/ Period _______ Observer _______

Date ___________________ #Students present ____________ Page ____ of ____

START: TIME:

Beg.	End	
		1.
		2.
		3.
		4.
		5.
		6.
		7.
		8.
		9.
		10.
		11.
		12.
		13.
		14.
		15.
		16.
		17.
		18.
		19.
		20.
		21.
		22.
		23.
		24.
		25.

Student Engagement

Time: ____________

No. of Students ________

Total: ____________

Def. On-task: ________

Prob. On-task: ________

Off-task: ________

Dead time:

Student Engagement

Time: ____________

No. of Students ________

Total: ____________

Def. On-task: ________

Prob. On-task: ________

Off-task: ________

(Form B)
NARRATIVE NOTES

Teacher # XX School # XX Subject # Math Grade Level/ Period # 7 Observer # XX

Date 10/10/83 #Students present 25 Page 1 of x

START: TIME:

Beg.	End	
8:30		1. Students enter room chatting quietly, sit down, and take out paper
		2. & pencil. Most are copying five 'warm-up' problems from the board.
		3. Room is arranged so all can see. When bell rings teacher enters room
		4. and says 'This is the beginning of a new six weeks. Let's make sure
		5. you have a good 'warm-up' grade to begin with.' T. passes out graded
8:35		6. papers from the day before. Students are finishing the problems on
		7. the board. Papers are arranged by rows so T. can pass them out
		8. quickly. T. goes to the front of the
		9. room and calls for sts. to exchange their
		10. papers with their neighbors. A few begin
		11. quiet talking. T. calls for attentions
		12. and asks for volunteers to answer the
		13. first problem. One or two call out but
		14. all the others raise their hands. As sts. give the answers the rest
8:43		15. correct their papers. T. asks for grades and sts. call them out.
		16. At this point, T notices that several students had trouble with one
		17. problem. She stops and goes to the board and begins to work the
		18. problem (7 1/8 X 5 2/3). T. calls for volunteers to set up the
		19. problem. Three raise hands and she calls on Andy. Andy explains
		20. how to convert to fractions in order to multiply. T. works problem
		21. step by step on the board. Then has
		22. students practice with an example prob-
		23. lem. She then goes back and questions
		24. and checks for understanding. Three
8:46		25. are still having trouble. T. sets up

Student Engagement
Time: 8:36
No. of Students 25
Total: 25
Def. On-task: 23
Prob. On-task: 1
Off-task: 1
Dead time: 0

Student Engagement
Time:
No. of Students
Total:
Def. On-task:
Prob. On-task:
Off-task:
Dead time:

(Form C-1)
Teacher Conference Form
First Days of School

Teacher ____________________ School ________________ Date __________ AM PM

Number of Students ____________ Observer ______________________________

1. Teacher presents, reviews, or discusses classroom rules or procedures.

   - Very thorough presentation of classroom rules and procedures. Half or more than half of observed class period is devoted to presentation, review, reteaching, practice, and/or feedback.

   - Thorough presentation; less than half of observed class period taken up with teaching of rules and procedures.

   - Moderate amount of attention given to presentation of rules and procedures. Some aspects of expected classroom behavior are discussed or reviewed; teacher provides feedback or reviews.

   - Small amount of attention given to teaching rules and procedures. Presentation, review, or feedback provided for only one or two aspects of expected classroom behavior.

   - No presentation, review, reteaching, feedback, reminders, or teacher-led discussion of rules and procedures.

2. Presentation of rules, procedures, and penalties is clear.

   - Teacher's expectations are clearly and specifically presented; terms are defined; no signs of student confusion are noted.

   - Presentation is vague, inadequate; terms are not defined; students appear to be confused or improvise their own rules and procedures.

3. Presentation includes explanation of rationale for rules and procedures.

   - Teacher presents or elicits from students a discussion of reasons for rules and procedures. Teacher's rationales are meaningful to students.

   - No rationales are discussed.

4. Presentation of rules and procedures includes rehearsal or practice.

   - Teacher includes appropriate student rehearsal or guided practice of routines, procedures, and responses to cues as part of his/her presentation.

   - No rehearsal or practice is used for even the most complex procedure

5. Teacher provides feedback and review.

   - Teacher gives prompt, accurate information to the class and to individuals about how well they do in practicing or using procedures in the first days.

   - Inaccurate feedback or none given to most students about their performance of procedures or following of rules.

6. Teacher stays in charge of all students, avoiding long involvement with individuals or small groups and absence from the room.

   - Statement is very characteristic of the teacher in the first days of school.

   - Statement is not characteristic; teacher leaves most or all of the class without close supervision and leadership several times during observation.

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(FORM C-2)

TEACHER CONFERENCE FORM

Teacher ____________ School ____________ Date ________ AM PM

Number of Students ________ Observer ____________________

1. Instructional Management

a. Describes objectives clearly

b. Materials are ready

c. Clear directions for assignments

d. Assignments for different students

e. Provides or seeks rationales/analysis

f. Appropriate pacing of lesson

g. Clear explanations and presentations

h. Monitors student understanding

i. Clear work standards

j. Consistently enforces work standards

2. Rules and Procedures

a. Appropriate general procedures

b. Efficient small group procedures

c. Suitable routines for assigning, checking, and collecting work

3. Meeting Student Concerns

a. Attention spans considered in lessons

b. Degree of student success

c. Activities related to students backgrounds and interests

4. Managing Pupil Behavior

a. Rewards appropriate performance

b. Consistency in managing behavior

c. Effective monitoring

d. Efficient transitions between activities

5. Student Misbehavior

a. Disruptive pupil behavior

b. Stopped quickly

c. Ignored

d. Inappropriate pupil behavior

e. Stopped quickly

f. Ignored

6. Classroom Climate

a. Task-oriented focus

b. Relaxed, pleasant atmosphere

c. Avoidance behavior during seatwork

d. Participation in class discussion

e. Listening skills

f. Expresses feelings